

# PUBLIC HEALTH REPORTS

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## QUARANTINE SERVICE IN THE VIRGIN ISLANDS.

EXECUTIVE ORDER PLACING THE ADMINISTRATION OF THE QUARANTINE SERVICE  
UNDER THE PUBLIC HEALTH SERVICE.

Whereas an act of Congress approved June 19, 1916, provides "that the Secretary of the Treasury shall have the control, direction, and management of all quarantine stations, grounds, and anchorages, established by authority of the United States \* \* \*,"

Now, therefore, I, Woodrow Wilson, President of the United States, by virtue of the authority in me vested, and pursuant to section 1 of the act approved March 3, 1917, entitled "An act to provide a temporary government for the West Indies islands, acquired by the United States from Denmark, etc.," do hereby order that the provisions of the act of Congress approved February 15, 1893, entitled "An act granting additional quarantine powers and imposing additional duties upon the Marine-Hospital Service," and all rules and regulations heretofore prescribed by the Secretary of the Treasury under this act are to be given full force and effect in the islands of St. Thomas, St. Croix, and St. John, West Indies, and all public property of the former government of the Virgin Islands, ceded heretofore to the United States, consisting of quarantine reservations, buildings, wharves, docks connected therewith, and equipment, be, and hereby are, taken for uses and purposes of the United States, and the Secretary of the Treasury, through the Surgeon General of the Public Health Service, is hereby charged with all administrative duties relating to said quarantine service, and the Secretary of the Treasury shall have estimates prepared by the Surgeon General of the Public Health Service and submitted to Congress for an appropriation for the maintenance of said quarantine service, and securement of reservations where necessary, and additional facilities for the proper enforcement of quarantine preventive measures.

WOODROW WILSON.

THE WHITE HOUSE,  
*September 27, 1917.*

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## THE CONTROL OF COMMUNICABLE DISEASES.

REPORT OF THE AMERICAN PUBLIC HEALTH ASSOCIATION COMMITTEE ON STANDARD REGULATIONS, APPOINTED IN OCTOBER, 1916.

In the following report the terms used are first defined. Each disease is briefly described with regard to the infective agent, the source of infection, the mode of transmission, the incubation period, and the period of communicability. Following this are given the methods of control—first, those affecting the individual patient and his immediate environment, and second, general measures bearing upon the control or prevention of the disease in question.

Inasmuch as the laws under which various boards and departments of health operate require differences in the legal phraseology of rules, regulations, or sections of sanitary codes dealing with the control of communicable diseases the committee has refrained from preparing formal regulations under each disease. As the report is at present submitted any health officer, board of health, or legislative body having the power to make rules or regulations or pass sections of sanitary codes dealing with the control of communicable diseases can, by reference to the description of the disease and recommendations for methods of control herewith proposed, easily prepare the necessary text upon which the educational and administrative acts of the health officer will be based. The list of diseases considered by the committee and herewith reported upon are those given in the Public Health Reports, Vol. 30, No. 27, July 2, 1915, of the Public Health Service in "A Model State Law for Morbidity Reports."

The committee is indebted for expert opinion and critical comment upon its tentative conclusions to Dr. Simon Flexner, Dr. William H. Park, Prof. Theobald Smith, and Dr. Bertram H. Waters, and acknowledgment of their contributions to the report in its present form is herewith gratefully expressed.

Dr. HAVEN EMERSON, *Chairman.*

ROBERT N. HOYT.

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### List of Diseases.

Actinomycosis.  
Acute infectious conjunctivitis.  
Anchylostomiasis (hookworm).  
Anthrax.  
Cerebrospinal meningitis.  
Chicken pox.  
Cholera.

Dengue.  
Diphtheria.  
Dysentery (amebic).  
Dysentery (bacillary).  
Favus.  
German measles.  
Glanders.

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Gonorrhea.	Septic sore throat.
Leprosy.	Smallpox.
Malaria.	Syphilis.
Measles.	Tetanus.
Mumps.	Trachoma.
Paratyphoid fever.	Trichinosis.
Plague.	Tuberculosis (pulmonary).
Pneumonia (acute lobar).	Tuberculosis (other than pulmonary).
Poliomyelitis.	Typhoid fever.
Rabies.	Typhus fever.
Rocky Mountain spotted or tick fever.	Whooping cough.
Scarlet fever.	Yellow fever.

**The committee adopted the following definitions of terms:**

1. *Cleaning*.—This term signifies the removal, by scrubbing and washing, of organic matter on which and in which bacteria may find favorable conditions for prolonging life and virulence; also the removal by the same means of bacteria adherent to surfaces.

2. *Contact*.—A "contact" is any person or animal known to have been sufficiently near to a human infected person or animal to have been exposed to transfer of infectious material directly, or by articles freshly soiled with such material.

3. *Delousing*.—By delousing is meant the process by which a person and his personal apparel are treated so that neither the adults nor the eggs of *pediculus corporis*, *pediculus vestimenti*, or *pediculus capitis* survive.

4. *Disinfection*.—By this is meant the destroying of the vitality of pathogenic micro-organisms by chemical means or by heat.

When the word *concurrent* is used as qualifying disinfection, it indicates the application of disinfection immediately after the discharge from the body of an infected person, of infectious material, or of articles soiled with such infectious discharges.

When the word *terminal* is used as qualifying disinfection, it indicates the process of rendering the personal clothing and immediate physical environment of the patient free from the possibility of conveying the infection to others, at the time when the patient is no longer a source of infection.

5. *Education in personal cleanliness*.—By this phrase it is intended to include all the various means available to impress upon all members of the community, young and old, and especially when communicable disease is prevalent or during epidemics, by spoken and printed word, and by illustration and suggestion, the necessity of:

(1) Washing the body daily with soap and water.

(2) Washing hands in soap and water after voiding bowels or bladder and always before eating.

(3) Keeping hands and unclean articles, or articles which have been used for toilet purposes by others away from mouth, nose, eyes, ears, and vagina.

(4) Avoiding the use of common or unclean eating, drinking, or toilet articles of any kind, such as towels, handkerchiefs, hair brushes, drinking cups, pipes, etc.

(5) Avoiding direct exposure to the spray from the noses and mouths of people who cough or sneeze, or laugh and talk loudly, and with wide open mouth, or in explosive manner.

6. *Fumigation*.—By fumigation is meant a process by which the destruction of insects, as mosquitoes and body lice, and animals, as rats, is accomplished by the employment of gaseous agents.

7. *Isolation*.<sup>1</sup>—By isolation is meant the separating of persons suffering from a communicable disease, or carriers of the infecting organism, from other persons, in

<sup>1</sup> In view of the various ambiguous and inaccurate uses to which the words isolation and quarantine are not infrequently put, it has seemed best to adopt arbitrarily the word isolation as describing the limitation put upon the movements of the known sick or "carrier" individual or animal, and the word quarantine to the limitations put upon exposed or "contact" individuals or persons.

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such places and under such conditions as will prevent the direct or indirect conveyance of the infectious agent to susceptible persons.

8. *Quarantine*.<sup>1</sup>—By quarantine is meant the limitation of freedom of movement of persons or animals who have been exposed to communicable disease for a period of time equal to the incubation period of the disease to which they have been exposed.

9. *Renovation*.—By renovation is meant, in addition to cleansing, such treatment of the walls, floors, and ceilings of rooms or houses as may be necessary to place the premises in a satisfactory sanitary condition.

10. *Report of a disease*.—By report of a disease is meant the notification to the health authorities, and, in the case of communicable disease in animals, also to the respective departments of agriculture who have immediate jurisdiction, that a case of communicable disease exists in a specified person or animal at a given address.

11. *Susceptibles*.—A susceptible is a person or animal who is not known to have become immune to the particular communicable disease in question by natural or artificial process.

The items considered necessary for presentation by the committee with regard to each disease are the following:

1. Infective agent.
2. Source of infection.
3. Mode of transmission.
4. Incubation period.
5. Period of communicability.
6. Methods of control.
  - (A) The infected individual and his environment:
    1. Recognition of the disease.
    2. Isolation.
    3. Immunization.
    4. Quarantine.
    5. Concurrent disinfection.
    6. Terminal disinfection.
  - (B) General measures.

#### **Actinomycosis.**

1. *Infective agent*: Actinomyces bovis.
2. *Source of infection*: The nasal and bowel discharges, and the infected material from lesions in human and animal cases of the disease. Uncooked meat from infected animals may serve as a source of infection.
3. *Mode of transmission*: By contact with the discharges or with articles freshly soiled with discharges from animal or human cases.
4. *Incubation period*: Unknown.
5. *Period of communicability*: As long as open lesions remain, as proved by presence of infective agent on microscopic or cultural tests.
6. *Methods of control*:
  - (A) The infected individual and his environment—
    1. Recognition of the disease—Clinical symptoms, confirmed by microscopic examination of discharges from the lesions.
    2. Isolation—None, provided the patient is under adequate medical supervision.
    3. Immunization—None.
    4. Quarantine—None.
    5. Concurrent disinfection—Of discharges from lesions and articles soiled therewith.
    6. Terminal disinfection—By thorough cleansing.

<sup>1</sup> In view of the various ambiguous and inaccurate uses to which the words isolation and quarantine are not infrequently put, it has seemed best to adopt arbitrarily the word isolation as describing the limitation put upon the movements of the known sick or "carrier" individual or animal, and the word quarantine to the limitations put upon exposed or "contact" individuals or persons.



6. *Methods of control*—Continued.

## (B) General measures—

1. Inspection of meat, with condemnation of carcasses, or infected parts of carcasses, of infected animals.
2. Destruction of known animal sources of infection.

**Acute Infectious Conjunctivitis.**

(Not including trachoma.)

(This title to replace the terms gonorrheal ophthalmia, ophthalmia neonatorum, and babies' sore eyes.)

1. *Infectious agent*: The gonococcus or some member of a group of pyogenic organisms, including the hemoglobinophilic bacilli.
2. *Source of infection*: Discharges from conjunctivæ, or adnexed, or genital mucous membranes of infected persons.
3. *Modes of transmission*: Contact with an infected person or with articles freshly soiled with discharges of such person.
4. *Incubation period*: Irregular, but usually 36 to 48 hours.
5. *Period of communicability*: During the course of the disease and until the discharges from the infected mucous membranes have ceased.
6. *Methods of control*:

## • (A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms, confirmed where possible by bacteriological examination.
2. Isolation—None, provided patient is under adequate medical supervision.
3. Immunization—None.
4. Quarantine—None.
5. Concurrent disinfection—Disinfection of conjunctival discharges and articles soiled therewith.
6. Terminal disinfection—Thorough cleansing.

## (B) General measures—

1. Enforcement of regulations forbidding the use of common towels and toilet articles. Education as to personal cleanliness.
2. Use of a solution of silver nitrate in the eyes of the new born.

**Anchylostomiasis.**

(Hookworm.)

1. *Infectious agent*.—Anchylostoma (Necator Americana duodenale).
2. *Source of infection*.—Feces of infected persons. Infection generally takes place through the skin, occasionally by the mouth.
3. *Mode of transmission*.—By drinking water containing larvæ, by eating soiled food, by hand to mouth transmission of the eggs or larvæ from objects soiled with infected discharges. The larval forms pierce the skin, and passing through the lymphatics to the vena cava and the right heart, thence in the blood stream to the lungs, they pierce the capillary walls and pass into the alveoli. Then they pass up the bronchi and trachea to the throat, whence they are swallowed and finally lodge in the small intestine.
4. *Incubation period*.—Seven to 10 weeks.
5. *Period of communicability*.—As long as the parasite or its ova are found in the bowel discharges of an infected individual. Contaminated soil remains infective for five months in the absence of freezing.

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6. *Methods of control:*

## (A) The infected individual and his environment—

1. Recognition of the disease—Microscopic examination of bowel discharges.
2. Isolation—None.
3. Immunization—None.
4. Quarantine—None.
5. Concurrent disinfection—Sanitary disposal of bowel discharges.
6. Terminal disinfection—None.
7. Treatment—Appropriate treatment of infected individual to rid the intestinal canal of the parasite and its ova.

## (B) General measures—

1. Education as to dangers of soil pollution.
2. Prevention of soil pollution by installation of sanitary disposal of human discharges.
3. Personal prophylaxis by cleanliness and the wearing of shoes.

**Anthrax.**

1. *Infectious agent.*—*Bacillus anthracis*.
2. *Source of infection.*—Hair, hides, flesh, and feces of infected animals.
3. *Mode of transmission.*—Inoculation as by accidental wound or scratch, inhalation of spores of the infectious agent, and ingestion of insufficiently cooked infected meat.
4. *Incubation period.*—Within seven days.
5. *Period of communicability.*—During the febrile stage of the disease and until lesions have ceased discharging. Infected hair and hides of infected animals may communicate the disease for many months after slaughter of the animal, and after curing of hide, fur, or hair, unless disinfected.
6. *Methods of control:*

## (A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms, confirmed by bacteriological examination.
2. Isolation of the infected individual until the lesions have healed.
3. Immunization—None.
4. Quarantine—None.
5. Concurrent disinfection of the discharges from lesions and articles soiled therewith.
6. Terminal disinfection—Thorough cleansing.

## (B) General measures—

1. Animals ill with a disease presumably anthrax should be placed immediately in the care of a veterinary surgeon.
2. Isolation of all animals affected with the disease.
3. Immunization of exposed animals under direction of Federal or State Department of Agriculture.
4. Post-mortem examinations should be made only by a veterinary surgeon, or in the presence of one.
5. Milk from an infected animal should not be used during the febrile period.
6. Control and disinfection of effluent and trade wastes and of areas of land polluted by such effluent and wastes from factories or premises, where spore-infected hides or other infected hide and hair products are known to have been worked up into manufactured articles.

6. *Methods of control*—Continued.(B) *General measures*—Continued.

7. A physician should be constantly employed by every company handling raw hides, or such companies should operate under the direct supervision of a medical representative of the health department.
8. Every employee handling raw hides, hair, or bristles who has an abrasion of the skin should immediately report to a physician.
9. Special instruction should be given to all employees handling raw hides in regard to the necessity of personal cleanliness.
10. Tanneries and woolen mills should be provided with proper ventilating apparatus so that dust can be promptly removed.
11. Disinfection of hair, wool, and bristles of animals originating in known infected centers before they are used or assorted.
12. The sale of hides from an animal infected with anthrax should be prohibited. A violation of this regulation should be immediately reported to the State commissioner of agriculture, by telegram, stating the time, place, and purchaser to whom the hide was sold. The report should also be sent to the person purchasing the hide. Carcasses should be disposed of under the supervision of the State department of agriculture. The inspection and disinfection of imported hides are under the supervision of the United States Bureau of Animal Industry. In the event that infection is introduced the State agricultural authorities have jurisdiction over infected animals and the local or State health authorities have jurisdiction over infected persons.

**Cerebrospinal Meningitis.**

1. *Infective agent*: *Diplococcus intracellularis meningitidis* (the meningococcus).
2. *Source of infection*: Discharge from the nose and mouth of infected persons. Clinically recovered cases, and healthy persons who have never had the disease but have been in contact with cases of the disease or other carriers, act as carriers and are commonly found, especially during epidemics. Such healthy carriers are not uncommonly found independent of epidemic prevalence of the disease.
3. *Mode of transmission*: By direct contact with infected persons and carriers, and indirectly by contact with articles freshly soiled with the nasal and mouth, discharges of such persons.
4. *Incubation period*: Two to ten days, commonly seven. Occasionally for longer periods when a person is a carrier for a time before developing the disease.
5. *Period of communicability*: During the clinical course of the disease and until the specific organism is no longer present in the nasal and mouth discharges of the patient. The same applies to healthy carriers so far as affects persistence of infectious discharges.
6. *Methods of control*:

## (A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms, confirmed by the microscopic and bacteriological examination of the spinal fluid, and by bacteriological examination of nasal and pharyngeal secretions.
2. Isolation of infected persons and carriers until the nasopharynx is free from the infecting organism, or, at the earliest, until one week after the fever has subsided.

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6. *Methods of control*—Continued.

## (A) The infected individual and his environment—Continued.

3. Immunization may prove of value. Immunization by the use of vaccines still in the experimental stage.
4. Quarantine—None.
5. Concurrent disinfection of discharges from the nose and mouth and of articles soiled therewith.
6. Terminal disinfection—Cleansing.

## (B) General measures—

1. Search for carriers among families and associates of recognized cases by bacteriological examination of posterior nares of all contacts.
2. Education as to personal cleanliness and necessity of avoiding contact and droplet infection.
3. Prevention of overcrowding such as is common in living quarters, transportation conveyances, working places, and places of public assembly in the civilian population, and in inadequately ventilated closed quarters in barracks, camps, and ships among military units.

**Chicken Pox.**

1. *Infectious agent*: Unknown.
2. *Source of infection*: The infectious agent is presumably present in the lesions of the skin and of the mucous membranes; the latter appearing early and rupturing as soon as they appear, render the disease communicable early; that is, before the exanthem is in evidence.
3. *Mode of transmission*: Directly from person to person; indirectly through articles freshly soiled by discharges from an infected individual.
4. *Incubation period*: Two to three weeks.
5. *Period of communicability*: Until primary scabs have disappeared from the mucous membranes and the skin.
6. *Methods of control*:

## (A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms. The differential diagnosis of this disease from smallpox is important, especially in people over 15 years of age.
2. Isolation—Exclusion of patient from school and prevention of contact with nonimmune persons.
3. Immunization—None.
4. Quarantine—None.
5. Concurrent disinfection of articles soiled by discharges from lesions.
6. Terminal disinfection—Through cleaning.

## (B) General measures—None.

**Cholera.**

1. *Infectious agent*: *Vibrio cholerae*.
2. *Source of infection*: Bowel discharges and vomitus of infected persons, and feces of convalescent or healthy carriers. Ten per cent of contacts may be found to be carriers.
3. *Mode of transmission*: By food and water polluted by infectious agent; by contact with infected persons, carriers, or articles freshly soiled by their discharges; by flies.
4. *Incubation period*: One to five, usually three, days, occasionally longer if the healthy carrier stage, before development of symptoms, is included.

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5. *Period of communicability*: Usually 7 to 14 days or longer and until the infectious organism is absent from the bowel discharges.

6. *Methods of control*:

(A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms, confirmed by bacteriological examination.
2. Isolation of patient in hospital or screened room.
3. Immunization may be of value by vaccination.
4. Quarantine—Contacts for five days from last exposure.
5. Concurrent disinfection—Prompt and thorough disinfection of the stools and vomited matter. Articles used by and in connection with the patient must be disinfected before removal from room. Food left by the patient should be burned.
6. Terminal disinfection—Bodies of those dying from cholera should be cremated if practicable, or, otherwise, wrapped in a sheet wet with disinfectant solution and placed in water-tight caskets. The room in which a sick patient was isolated should be thoroughly cleansed and disinfected.

(B) General measures—

1. Rigid personal prophylaxis of attendants by scrupulous cleanliness, disinfection of hands each time after handling patient or touching articles contaminated by dejecta, the avoidance of eating or drinking anything in the room of the patient, and the prohibition of those attendant on the sick from entering the kitchen.
2. The bacteriological examination of the stools of all contacts to determine carriers. Isolation of carriers.
3. Water should be boiled, if used for drinking or toilet purposes, or is used in washing dishes or food containers, unless the water supply is adequately protected against contamination or is so treated, as by chlorination, that the cholera vibrio can not survive in it.
4. Careful supervision of food and drink. Where cholera is prevalent, only cooked foods should be used. Food and drink after cooking or boiling should be protected against contamination, as by flies and human handling.

(C) Epidemic measures—

Inspection service for early detection and isolation of cases; examination of persons exposed in infected centers for detection of carriers, the isolation or control of carriers; disinfection of rooms occupied by the sick, and the detention, in suitable camps for five days, of those desirous of leaving for another locality. Those so detained should be examined for detection of carriers.

### Dengue.

1. *Infectious agent*: Unknown.
2. *Source of infection*: The blood of infected persons.
3. *Mode of transmission*: By the bite of infected mosquitoes, probably the *Culex fatigans*.
4. *Incubation period*: Four to five days.
5. *Period of communicability*: During the febrile stage of the disease.

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**6. Methods of control:****(A) The infected individual and his environment—**

1. Recognition of the disease—Clinical symptoms.
2. Isolation—The patient must be kept in a screened room.
3. Immunization—None.
4. Quarantine—None.
5. Concurrent disinfection—None.
6. Terminal disinfection—None. Upon termination of the case, fumigation of the room and house, to destroy mosquitoes.

**(B) General measures—**

Measures directed toward elimination of mosquitoes. Screening of rooms.

**Diphtheria.**

1. *Infectious agent:* Bacillus diphtheria (the Klebs-Loeffler bacillus).
2. *Source of infection:* Discharges from diphtheritic lesions of nose, throat, conjunctiva, vagina, and wound surfaces. Secretions from the nose and throat of carriers of the bacillus.
3. *Mode of transmission:* Directly by personal contact, indirectly by articles freshly soiled with discharges, or through infected milk or milk products.
4. *Incubation period:* Usually two to five days, occasionally longer if a healthy carrier stage precedes the development of clinical symptoms.
5. *Period of communicability:* Until virulent bacilli have disappeared from the secretions and the lesions. The persistence of the bacilli after the lesions have healed is variable. In fully three-quarters of the cases they disappear within two weeks. In exceptional cases virulent bacilli remain in the throat and discharges for from two to six months.

**6. Methods of control:****(A) The infected individual and his environment—**

1. Recognition of the disease—By clinical symptoms, always to be confirmed by bacteriological examination.
2. Isolation—Until two cultures from the throat and two from the nose, taken not less than 24 hours apart, fail to show the presence of diphtheria bacilli. Isolation may be terminated if persistent diphtheria bacilli prove virulent.
3. Immunization—Exposed susceptibles to be promptly immunized by antitoxin. (By susceptibles is meant such individuals as are found to be nonimmune by the Schick test.)
4. Quarantine—All exposed persons until shown by bacteriological examination not to be carriers.
5. Concurrent disinfection of all articles which have been in contact with the patient and all articles soiled by discharges from the patient.
6. Terminal disinfection—At the end of the illness, thorough airing of the sick room, with cleansing or renovation.

**(B) General measures—**

1. Pasteurization of milk supply.
2. Application of the Schick test to all contacts, and immunization of all susceptibles.
3. Application of the Schick test to all children.
4. Immunization by toxin-antitoxin inoculation of all susceptibles.
5. Determine presence or absence of carriers among contacts, and, so far as practicable, in the community at large.

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**Dysentery (Amœbic).**

1. *Infectious agent:* Amœba histolytica.
2. *Source of infection:* The bowel discharges of infected persons.
3. *Mode of transmission:* By drinking contaminated water, and by eating infected foods, and by hand to mouth transfer of infected material; from objects soiled with discharges of an infected individual, or of a carrier; by flies.
4. *Incubation period:* Unknown.
5. *Period of communicability:* During course of disease and until repeated microscopic examination of stools shows absence of amœba histolytica.
6. *Methods of control:*
  - (A) The infected individual and his environment—
    1. Recognition of the disease—Clinical symptoms, confirmed by microscopic examination of stools.
    2. Isolation—None.
    3. Immunization—None.
    4. Quarantine—None.
    5. Concurrent disinfection of the bowel discharges.
    6. Terminal disinfection—Cleansing.
  - (B) General measures—
    1. Boil drinking water unless supply is known to be free from contamination.
    2. Water supply should be protected against contamination and supervision should be exercised over all foods eaten raw.

**Dysentery (Bacillary).**

1. *Infectious agent:* Bacillus dysenteriae.
2. *Source of infection:* The bowel discharges of infected persons.
3. *Mode of transmission:* By drinking contaminated water, and by eating infected foods, and by hand-to-mouth transfer of infected material; from objects soiled with discharges of an infected individual or of a carrier; by flies.
4. *Incubation period:* Two to seven days.
5. *Period of communicability:* During the febrile period of the disease and until the organism is absent from the bowel discharges.
6. *Methods of control:*
  - (A) The infected individual and his environment—
    1. Recognition of the disease—Clinical symptoms, confirmed by serological and bacteriological tests.
    2. Isolation—Infected individuals during the communicable period of the disease.
    3. Immunization—Vaccines give considerable immunity. Owing to severe reactions their use is not universal, nor should it be made compulsory except under extreme emergency.
    4. Quarantine—None.
    5. Concurrent disinfection—Bowel discharges.
    6. Terminal disinfection—Cleansing.
  - (B) General measures—
    1. Rigid personal prophylaxis of attendants upon infected persons.
    2. No milk or food for human consumption should be sold from a place occupied by a patient unless the persons engaged therein occupy quarters separate from the house where the patient is sick, and all utensils used are cleaned and kept in a separate building, and under a permit from the health officer.
    3. All attendants upon persons affected with this disease should be prohibited from having anything to do with the handling of food.
    4. Necessary precautions against flies.

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**Favus.**

1. *Infectious agent:* Achorion Schoenleini.
2. *Source of infection:* Lesions of skin, particularly on scalp.
3. *Mode of transmission:* Direct contact with patient and indirectly through toilet articles.
4. *Incubation period:* Unknown.
5. *Period of communicability:* Until skin and scalp lesions are all healed.
6. *Methods of control:*

(A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms confirmed by microscopic examination of crusts.
2. Isolation—Exclusion of patient from school and other public places until lesions are healed.
3. Immunization—None.
4. Quarantine—None.
5. Concurrent disinfection—Toilet articles of patient.
6. Terminal disinfection—None.

(B) General measures—

1. Elimination of common utensils, such as hair brushes and combs.
2. Provision for adequate and intensive treatment and cure of cases of favus at hospitals and dispensaries, to abbreviate the period of infectivity of the patients.

**German Measles.**

1. *Infectious agent:* Unknown.
2. *Source of infection:* Secretions of the mouth and possibly of the nose.
3. *Mode of transmission:* By direct contact with the patient or with articles freshly soiled with the discharges from the nose or throat of the patient.
4. *Incubation period:* From 10 to 21 days.
5. *Period of communicability:* Eight days from onset of the disease.
6. *Method of control:*

(A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms.
2. Isolation—Separation of the patient from nonimmune children, and exclusion of the patient from school and public places for the period of presumed infectivity.
3. Immunization—None.
4. Quarantine—None except exclusion of nonimmune children from school and public gatherings, from the eleventh to the twenty-second day from date of exposure to a recognized case.
5. Concurrent disinfection—Discharges from the nose and throat of the patient and articles soiled by discharges.
6. Terminal disinfection—Airing and cleansing.

(B) General measures—

None.

**NOTE.**—The reason for attempting to control this disease is that it may be confused with scarlet fever during its early stages; each person having symptoms of the disease should therefore be placed under the care of a physician and the case should be reported to the local department of health.

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**Glanders.**

1. *Infectious agent:* *Bacillus mallei*.
2. *Source of infection:* Discharges from open lesions of mucous membranes, or of the skin of human or equine cases of the disease (i. e., pus and mucous from the nose, throat, and bowel discharges from infected man and horse).
3. *Mode of transmission:* Contact with a case or with articles freshly soiled by discharges from a human or equine case.
4. *Incubation period:* Unknown.
5. *Period of communicability:* Until bacilli disappear from discharges or until lesions have healed.
6. *Methods of control:*

## (A) The infected individual and his environment—

1. Recognition of the disease—By specific biological reactions, such as the complement fixation test, the mallein test, the agglutination test, or by nonspecific reactions, such as the Straus reaction, if confirmed by culture, or by identification of the *bacillus mallei*, or by autopsy of doubtful cases.
2. Isolation—Human case at home or hospital; for infected horses destruction rather than isolation is advised.
3. Immunization—None of established value or generally accepted.
4. Quarantine of all horses in an infected stable until all have been tested by specific reaction, and the removal of infected horses and terminal disinfection of stable have been accomplished.
5. Concurrent disinfection—Discharges from human cases and articles soiled therewith.
6. Terminal disinfection—Stables and contents in horse cases of the disease.

## (B) General measures—

1. The abolition of the common drinking trough for horses.
2. Sanitary supervision of stables and blacksmith shops.

NOTE.—In this disease, as in all infectious or communicable diseases from which both animals and humans suffer, cases occurring in animals should be reported to the Department of Agriculture and human cases should be reported to the Department of Health, reciprocal notification thereafter to be accomplished through official interdepartment channels.

**Gonorrhoea.**

1. *Infectious agent:* *Gonococcus*.
2. *Source of infection:* Discharges from lesions of inflamed mucous membranes and glands of infected persons, viz, urethral, vaginal, cervical, conjunctival mucous membranes, and Bartholin's or Skene's glands in the female, and Cowper's and the prostate glands in the male.
3. *Mode of transmission:* By direct personal contact with infected persons, and indirectly by contact with articles freshly soiled with the discharges of such persons.
4. *Incubation period:* One to eight days, usually three to five days.
5. *Period of communicability:* As long as the gonococcus persists in any of the discharges, whether the infection be an old or a recent one.
6. *Methods of control:*

## (A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms, confirmed by bacteriological examination or serum reaction.
2. Isolation—When the lesions are in the genito-urinary tract, exclusion from sexual contact, and when the lesions are conjunctival, exclusion from school or contact with children, as long as the discharges contain the infecting organism.

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6. *Methods of control*—Continued.

## (A) The infected individual and his environment—Continued.

3. Immunization—None.
4. Quarantine—None.
5. Concurrent disinfection—Discharges from lesions and articles soiled therewith.
6. Terminal disinfection—None.

## (B) General measures—

1. Education in matters of sexual hygiene, particularly as to the fact that continence in both sexes at all ages is compatible with health and development.
2. Provision for accurate and early diagnosis, and treatment in hospitals and dispensaries of infected persons with consideration for privacy of record and provision for following cases until cured.
3. Repression of prostitution by use of police power and control of use of living premises.
4. Restriction of sale of alcoholic beverages.
5. Restrictions of advertising of services or medicines for the treatment of sex diseases, etc.
6. Elimination of common towels and toilet articles from public places.
7. Use of prophylactic silver solution in the eyes of the new born.
8. Exclusion of persons in the communicable stage of the disease from participation in the preparing and serving of food.
9. Personal prophylaxis should be advised to those who expose themselves to opportunity for infection.

**Leprosy.**

1. *Infectious agent*: *Bacillus lepræ*.
2. *Source of infection*: Discharges from lesions.
3. *Mode of transmission*: By close, intimate, and prolonged contact with infected individuals. Flies and other insects may be mechanical carriers.
4. *Incubation period*: Prolonged, undetermined.
5. *Period of communicability*: Infectivity exists throughout the duration of the disease. Under ordinary conditions this disease is but slightly communicable.
6. *Methods of control*:

## (A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms, confirmed by bacteriological examination.
2. Isolation for life in national leprosarium when this is possible.
3. Immunization—None.
4. Quarantine—None.
5. Concurrent disinfection—Discharges and articles soiled with discharges.
6. Terminal disinfection—Thorough cleansing of living premises of the patient.

## (B) General measures—

1. Lack of information as to the determining factors in the spread and communication of the disease makes any but general advice in matters of personal hygiene of no value.
2. As a temporary expedient, lepers may be properly cared for in local hospitals, or if conditions of the patient and his environment warrant, he may be allowed to remain on his own premises under suitable regulations.



**Malaria.**

1. *Infectious agent:* The several species of malarial organisms.
2. *Source of infection:* The blood of an infected individual.
3. *Mode of transmission:* By bite of infected anopheles mosquito. The mosquito is infected by biting an individual suffering from acute or chronic malaria. The parasite develops in the body of the mosquito for from 10 to 14 days, after which time the sporozoites appear in its salivary gland.
4. *Incubation period:* Varies with the type of species of infecting organism and the amount of infection; usually 14 days in the tertian variety.
5. *Period of communicability:* As long as the malaria organism exists in the blood.
6. *Methods of control:*

## (A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms, always to be confirmed by microscopical examination of the blood.
2. Isolation—Exclusion of patient from approach of mosquitoes, until his blood is rendered free from malarial parasites by thorough treatment with quinine.
3. Immunization—None. The administration of prophylactic doses of quinine accomplishes the same result, and should be insisted upon for those constantly exposed to infection and unable to protect themselves against anopheles mosquitoes.
4. Quarantine—None.
5. Concurrent disinfection—None. Destruction of anopheles mosquitoes in the sick room.
6. Terminal disinfection—None. Destruction of anopheles mosquitoes in the sick room.

## (B) General measures—

1. Employment of known measures for destroying larvæ of anophelines and the eradication of breeding places of those mosquitoes.
2. Blood examination of persons living in infected centers to determine the incidence of infection.
3. Screening sleeping and living quarters; use of mosquito nets.
4. Killing mosquitoes in living quarters.

**Measles.**

1. *Infectious agent.*—A filterable virus.
2. *Source of infection.*—Buccal and nasal secretions of an infected individual.
3. *Mode of transmission.*—Directly from person to person; indirectly through articles freshly soiled with the buccal and nasal discharges of an infected individual. The most easily transmitted of all communicable diseases.
4. *Incubation period.*—Seven to eighteen days; usually 14 days.
5. *Period of communicability.*—During the period of catarrhal symptoms and until the cessation of abnormal mucous membrane secretions—minimum period of seven days; from two days before to five days after the appearance of the rash.
6. *Methods of control:*

## (A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms. Special attention to rise of temperature. Koplik spots and catarrhal symptoms in exposed individuals.
2. Isolation—During period of communicability.
3. Immunization—None.

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6. *Methods of control*—Continued.

## (A) The infected individual and his environment—Continued.

4. Quarantine—Exclusion of exposed susceptible school children and teachers from school until 14 days from last exposure. This applies to exposure in the household. Exclusion of exposed susceptible children from all public gatherings for the same period.
5. Concurrent disinfection—All articles soiled with the secretions of the nose and throat.
6. Terminal disinfection—Thorough cleansing.

## (B) General measures—

1. Daily examination of exposed children and of other possibly exposed persons. This examination should include record of the body temperature. A nonimmune exposed individual exhibiting a rise of temperature of 0.5° C. or more should be promptly isolated pending diagnosis.
2. Schools should not be closed or classes discontinued where daily observation of the children by a doctor or nurse is available.
3. Education as to special danger of exposing young children to those exhibiting acute catarrhal symptoms of any kind.

**Mumps.**

1. *Infective organism*.—Unknown.
2. *Source of infection*.—Secretions of the mouth and possibly of the nose.
3. *Mode of transmission*.—By direct contact with an infected person or with articles freshly soiled with the discharges from the nose or throat of such infected person.
4. *Incubation period*.—From 4 to 25 days. The most common period, 14 days, accepted as usual. The maximum common period 21 days.
5. *Period of communicability*.—Unknown, but assumed to persist until the parotid gland has returned to its normal size.
6. *Methods of control*:

## (A) The infected individual and his environment—

1. Recognition of the disease—Inflammation of Steno's duct may be of assistance in recognizing the early stage of the disease. The diagnosis is usually made on swelling of the parotid gland.
2. Isolation—Separation of the patient from nonimmune children and exclusion of the patient from school and public places for the period of presumed infectivity. (See V).
3. Immunization—None.
4. Quarantine—Limited to exclusion of nonimmune children from school and public gatherings for 14 days after last exposure to a recognized case.
5. Concurrent disinfection—All articles soiled with the discharges from the nose and throat of the patient.
6. Terminal disinfection—None.

## (B) General measures—

None.

**Paratyphoid Fever.**

1. *Infectious agent*: *Bacillus paratyphosus* A or B.
2. *Source of infection*: Bowel discharges and urine of infected persons, and foods contaminated with such discharges of infected persons or of healthy carriers. Healthy carriers may be numerous in an outbreak.

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3. *Mode of transmission*: Directly by personal contact; indirectly by contact with articles freshly soiled with the discharges of infected persons or through milk, water, or food contaminated by such discharges.
4. *Incubation period*: Four to ten days; average, seven days.
5. *Period of communicability*: From the appearance of prodromal symptoms, throughout the illness and relapses, during convalescence, and until repeated bacteriological examination of discharges show absence of the infecting organism.
6. *Methods of control*:

(A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms, confirmed by specific agglutination test, and by bacteriological examination of blood, bowel discharges, or urine.
2. Isolation—In fly-proof room, preferably under hospital conditions of such cases as can not command adequate sanitary environment and nursing care in their homes.
3. Immunization of exposed susceptibles.
4. Quarantine—None.
5. Concurrent disinfection—Disinfection of all bowel and urinary discharges and articles soiled with them.
6. Terminal disinfection—Cleansing.

(B) General measures—

1. Purification of public water supplies.
2. Pasteurization of public milk supplies.
3. Supervision of other food supplies and of food handlers.<sup>1</sup>
4. Prevention of fly breeding.
5. Sanitary disposal of human excreta.
6. Extension of immunization by vaccination as far as practicable.
7. Supervision of paratyphoid carriers and their exclusion from the handling of foods.
8. Systematic examination of fecal specimens, from those who have been in contact with recognized cases, to detect carriers.
9. Exclusion of suspected milk supplies pending discovery of the person or other cause of contamination of the milk.
10. Exclusion of water supply, if contaminated, until adequately treated with hypochlorite or other efficient disinfectant, or unless all water used for toilet, cooking, and drinking purposes is boiled before use.

**Plague.**

**(Bubonic, Septicemic, Pneumonic.)**

1. *Infectious agent*.—*Bacillus pestis*.
2. *Source of infection*.—Blood of infected persons and animals, and sputum of human cases of plague pneumonia.
3. *Mode of transmission*.—Direct in the pneumonic form. In other forms the disease is generally transmitted by the bites of fleas (*Loemopsylla cheopis* and *ceratophyllus fasciatus*), by which the disease is carried from rats to man, also by fleas from other rodents. Accidental, by inoculation, or by the bites of infected animals. Bedbugs may transmit the infection; flies may possibly convey the infection.

<sup>1</sup> The human disease paratyphoid fever should not be confused with cases of food poisoning, or infection due to paratyphoid enteritidis bacilli of animal origin.

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4. *Incubation period*.—Commonly from 3 to 7 days, although occasionally prolonged to 8 or even 14 days.
5. *Period of communicability*.—Until convalescence is well established, period undetermined.
6. *Methods of control*:
  - (A) The infected individual and his environment—
    1. Recognition of the disease—Clinical symptoms, confirmed by bacteriological examination of blood, pus from glandular lesions, or sputum.
    2. Isolation—Patient in hospital if practicable; if not, in a screened room which is free from vermin.<sup>1</sup>
    3. Immunization—Passive immunization of known exposed contacts; active immunization of those who may be exposed.
    4. Quarantine—Contacts for seven days.
    5. Concurrent disinfection—All discharges and articles freshly soiled therewith.
    6. Terminal disinfection—Thorough cleansing followed by thorough disinfection.
  - (B) General measures—
    1. Extermination of rats and vermin by use of known methods for their destruction; destruction of rats on ships arriving from infected ports; examination of rats, ground squirrels, etc., in areas where the infection persists, for evidence of endemic or epidemic prevalence of the disease among them.
    2. Supervision of autopsies of all deaths during epidemics.
    3. Supervision of the disposal of the dead during epidemics, whether by burial, transfer, or holding in vault, whatever the cause of death.
    4. Cremation, or burial in quick lime, of those dying of this disease.

### **Poliomyelitis.**

1. *Infectious agent*: Not definitely determined. Believed to be a filterable virus.
2. *Source of infection*: Nose, throat, and bowel discharges of infected persons or articles recently soiled therewith. Healthy carriers are supposed to be common.
3. *Mode of transmission*: By direct contact with an infected person or with a carrier of the virus, or indirectly by contact with articles freshly soiled with the nose, throat, or bowel discharges of such persons.
4. *Incubation period*: From 3 to 10 days, commonly 6 days.
5. *Period of communicability*: Unknown; apparently not more than 21 days from the onset of disease.
6. *Methods of control*:
  - (A) The infected individual and his environment—
    1. Recognition of the disease—Clinical symptoms, assisted by chemical and microscopical examination of the spinal fluid.
    2. Isolation of all recognized cases in screened rooms.
    3. Immunization—None.
    4. Quarantine of exposed children of the household and of adults of the household whose vocation brings them into contact with children, or who are food handlers, for 14 days from last exposure to a recognized case.

<sup>1</sup> In plague pneumonia, personal prophylaxis, to avoid droplet infection, must be carried out by persons who come in contact with the sick. Masks or veils of cheese cloth should be worn as protective measures.

**6. Methods of control—Continued.****(A) The infected individual and his environment—Continued.**

5. Concurrent disinfection—Nose, throat, and bowel discharges and articles soiled therewith.
6. Terminal disinfection—Cleansing.

**(B) General measures during epidemics—**

1. Search for and examination of all sick children should be made.
2. All children with fever should be isolated pending diagnosis.
3. Education in such technique of bedside nursing as will prevent the distribution of infectious discharges to others from cases isolated at home.

**Rabies.**

1. *Infectious agent*: Unknown.
2. *Source of infection*: Saliva of infected animals, chiefly dogs.
3. *Mode of transmission*: Inoculation with saliva of infected animals through abrasion of skin or mucus membrane, almost always by bites or scratches.
4. *Incubation period*: Usually 2 to 6 weeks. May be prolonged to 6 months or even longer.
5. *Period of communicability*: For 15 days (in the dog; not known in man) before the onset of clinical symptoms and throughout the clinical course of the disease.
6. *Methods of control*:

**(A) The infected individual and his environment—**

1. Recognition of the disease—Clinical symptoms, confirmed by the presence of Negri bodies in the brain of an infected animal, or by animal inoculations with material from the brain of such infected animal.
2. Isolation—None if patient is under adequate medical supervision, and the immediate attendants are warned of possibility of inoculation by human virus.
3. Immunization—Preventive vaccination (Pasteur treatment) after exposure to infection by inoculation.
4. Quarantine—None.
5. Concurrent disinfection of saliva of patient and articles soiled therewith.
6. Terminal disinfection—Thorough cleansing.

**(B) General measures—**

1. Muzzling of dogs when on public streets or in places to which the public has access.
2. Detention and examination of dogs suspected of having rabies.
3. Immediate antirabic treatment of people bitten by dogs or by other animals suspected or known to have rabies, unless the animal is proved not to be rabid by subsequent observation or by microscopic examination of the brain and cord.

**Pneumonia.****Acute Lobar.**

1. *Infectious agent*.—Various pathogenic bacteria commonly found in the nose, throat, and mouth, such as the pneumococcus, the bacillus of Friedlander, the influenza bacillus, etc.
2. *Source of infection*.—Discharges from the mouth and nose of apparently healthy carriers, as well as of recognized infected individuals, and articles freshly soiled with such discharges.

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3. *Mode of transmission*.—By direct contact with an infected person, or with articles freshly soiled with the discharges from the nose or throat of, and possibly from infected dust of rooms occupied by, infected persons.
4. *Incubation period*.—Short, usually two to three days.
5. *Period of communicability*.—Unknown; presumably until the mouth and nasal discharges no longer carry the infectious agent in an abundant amount or in a virulent form.
6. *Methods of control*:

(A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms. Specific infecting organisms may be determined by serological and bacteriological tests early in the course of the disease.
2. Isolation—Patient during clinical course of the disease.
3. Immunization—None; vaccines are worthy of further careful trial.
4. Quarantine—None.
5. Concurrent disinfection—Discharges from the nose and throat of the patient.
6. Terminal disinfection—Thorough cleansing, airing, and sunning.

(B) General measures—

In institutions and camps, when practicable, people in large numbers should not be congregated closely within doors. The general resistance should be conserved by good feeding, fresh air, temperance in the use of alcoholic beverages, and other hygienic measures.

NOTE.—The early reporting of pneumonia is highly desirable in view of its communicability and the possibility of effective treatment of certain types with curative sera.

### Rocky Mountain Spotted or Tick Fever.

1. *Infectious agent*.—Unknown.
2. *Source of infection*.—Blood of infected animals, and infected ticks (*Dermacentor* species).
3. *Mode of transmission*.—By bites of infected ticks.
4. *Incubation period*.—Three to ten days, usually seven days.
5. *Period of communicability*.—Has not been definitely determined, probably during the febrile stage of the disease.
6. *Methods of control*:

(A) The infected individual and his environment—

1. Recognition of the disease—By clinical symptoms of the disease in areas where the disease is known to be endemic.
2. Isolation—None other than care exercised to protect patients from tick bites when in endemic areas.
3. Immunization—None.
4. Quarantine—None.
5. Concurrent disinfection—None. All ticks on the patient should be destroyed.
6. Terminal disinfection—None.

(B) General measures—

1. Personal prophylaxis of persons entering the infected zones during the season of ticks, by wearing tick-proof clothing, and careful daily search of the body for ticks which may have attached themselves.
2. The destruction of ticks by clearing and burning vegetation on the land in infected zones.

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6. *Methods of control*—Continued.

(B) General measures—Continued.

3. The destruction of ticks on domestic animals by dipping, and the pasturing of sheep on tick-infested areas where the disease is prevalent, with the object of diminishing the number of ticks.
4. The destruction of small mammalian hosts as ground squirrels, chipmunks, etc.

**Scarlet Fever.**

1. *Infectious agent*.—Unknown.

2. *Source of infection*.—The belief at present is that the virus is contained in the secretions from the nose and throat, in the blood and in the lymph nodes, and that it is given off in the discharges from the mouth, the nose, the ears, and from broken-down glands of infected persons.

3. *Mode of transmission*.—Directly by personal contact with an infected person; indirectly by articles freshly soiled with discharges of an infected person, or through contaminated milk.

4. *Incubation period*.—Two to seven days, usually three or four days.

5. *Period of communicability*.—Four weeks from the onset of the disease, and until all abnormal discharges have stopped and all open sores have healed.

6. *Methods of control*.—

(A) The infected individual and his environment—

1. Recognition of the disease—By clinical symptoms.
2. Isolation—In home or hospital, maintained in each case until the end of the period of infectivity.
3. Immunization—None.
4. Quarantine—Exclusion of exposed susceptible children and teachers from school, and food handlers from their work, until five days have elapsed since last exposure to a recognized case.
5. Concurrent disinfection—Of all articles which have been in contact with a patient and all articles soiled with discharges of the patient.
6. Terminal disinfection—Thorough cleansing.

(B) General measures—

1. Daily examination of exposed children and of other possibly exposed persons for a week after last exposure.
2. Schools should not be closed where daily observation of the children by a doctor or nurse is available.
3. Education as to special danger of exposing young children to those exhibiting acute catarrhal symptoms of any kind.
4. Pasteurization of milk supply.

**Septic Sore Throat.**

1. *Infectious agent*.—Streptococcus (hemolytic type).

2. *Source of infection*.<sup>1</sup>—The human naso-pharynx, usually the tonsils, any case of acute streptococcus inflammation of these structures being a potential source of infection, including the period of convalescence of such cases. The udder of a cow infected by the milker is an occasional source of infection. In such udders the physical signs of mastitis are usually absent.

<sup>1</sup> Direct human contamination of milk is only rarely, if ever, a cause of infection. Mastitis in the cow, due to bovine streptococci, is not a cause of septic sore throat in humans unless a secondary infection of the udder by a human type of streptococcus takes place.

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3. *Mode of transmission.*—Direct or indirect human contact; consumption of raw milk from an infected udder.
4. *Incubation period.*—One to three days.
5. *Period of communicability.*—In man, presumably during the continuance of clinical symptoms; in the cow, during the continuance of discharge of the streptococci in the milk, the condition in the udder tending to a spontaneous subsidence. The carrier stage may follow convalescence and persist for some time.
6. *Methods of control:*
  - (A) The infected individual and his environment—
    1. Recognition of the disease—Clinical symptoms. Bacteriological examination of the lesions or discharges from the tonsils and nasopharynx may be useful.
    2. Isolation—During the clinical course of the disease and convalescence, and particularly exclusion of the patient from participation in the production or handling of milk or milk products.
    3. Immunization—None.
    4. Quarantine—None.
    5. Concurrent disinfection—Articles soiled with discharges from the nose and throat of the patient.
    6. Terminal disinfection—Cleansing.
  - (B) General measures—
    1. Exclusion of suspected milk supply from public sale or use, until pasteurized. The exclusion of the milk of an infected cow or cows in small herds is possible when based on bacteriological examination of the milk of each cow, and preferably the milk from each quarter of the udder at frequent intervals.
    2. Pasteurization of all milk.
    3. Education in the principles of personal hygiene and avoidance of the use of common toilet, drinking and eating utensils.

#### Smallpox.

1. *Infectious agent.*—Unknown.
2. *Source of infection.*—Lesions of the skin and mucous membranes of infected persons.
3. *Mode of transmission.*—By direct personal contact; by articles soiled with discharges from lesions. The virus may be present in all body discharges, including feces and urine. It may be carried by flies.
4. *Incubation period.*—Twelve to fourteen days.
5. *Period of communicability.*—From first symptoms to disappearance of all scabs and crusts.
6. *Methods of control:*
  - (A) The infected individual and his environment—
    1. Recognition of the disease—Clinical symptoms. Laboratory tests for immunity may prove useful.
    2. Isolation—Hospital isolation in screened wards, free from vermin, until the period of infectivity is over.
    3. Immunization—Vaccination.
    4. Quarantine—Segregation of all exposed persons for 14 days from date of last exposure, or until protected by vaccination.
    5. Concurrent disinfection of all discharges and articles soiled therewith.
    6. Terminal disinfection—Thorough cleansing and disinfection of premises.

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6. *Methods of control*—Continued.

## (B) General measures—

General vaccination in infancy, revaccination of children on entering school, and of entire population when the disease is prevalent.

NOTE.—The time of vaccination of infants to avoid teething or other mild and common indispositions, the time of vaccination of children of the runabout age and older with preference for the cool months of the year, and the manner of vaccination with preference for the single puncture or small area scratch method through the droplet of virus are important to observe in order to avoid possible complications or secondary and subsequent infections at the site of vaccination.

## Syphilis.

1. *Infectious agent*.—*Treponema pallidum*.
2. *Source of infection*.—Discharges from the lesions of the skin and mucous membranes, and the blood of infected persons, and articles freshly soiled with such discharges or blood in which the *treponema pallidum* is present.
3. *Mode of transmission*.—By direct personal contact with infected persons, and indirectly by contact with discharges from lesions or with the blood of such persons.
4. *Incubation period*.—About three weeks.
5. *Period of communicability*.—As long as the lesions are open upon the skin or mucous membranes and until the body is freed from the infecting organisms, as shown by microscopic examination of material from ulcers and by serum reactions.
6. *Methods of control*:
  - (A) The infected individual and his environment—
    1. Recognition of the disease—Clinical symptoms, confirmed by microscopical examination of discharges and by serum reactions.
    2. Isolation—Exclusion from sexual contact and from preparation or serving of food during the early and active period of the disease; otherwise none, unless the patient is unwilling to heed, or is incapable of observing, the precautions required by the medical adviser.
    3. Immunization—None.
    4. Quarantine—None.
    5. Concurrent disinfection of discharges and of articles soiled therewith.
    6. Terminal disinfection—None.

## (B) General measures—

1. Education in matters of sexual hygiene, particularly as to the fact that continence in both sexes and at all ages is compatible with health and development.
2. Provision for accurate and early diagnosis and treatment, in hospitals and dispensaries, of infected persons, with consideration for privacy of record, and provision for following cases until cured.
3. Repression of prostitution by use of the police power and control of use of living premises.
4. Restriction of sale of alcoholic beverages.
5. Restriction of advertising of services or medicines for treatment of sex diseases, etc.
6. Abandonment of the use of common towels, cups, and toilet articles and eating utensils.
7. Exclusion of persons in the communicable stage of the disease from participation in the preparing and serving of food.
8. Personal prophylaxis should be advised to those who expose themselves to opportunity to infection.

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**Tetanus.**

1. *Infectious agent:* *Bacillus tetani*.
2. *Source of infection:* Animal manure, and soil fertilized with animal manure, and, rarely, the discharges from wounds.
3. *Mode of transmission:* Inoculation, or wound infection.
4. *Incubation period:* Six to fourteen days, usually nine.
5. *Period of communicability:* Patient not infectious except in rare instances where wound discharges are infectious.
6. *Methods of control:*

(A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms; may be confirmed bacteriologically.
2. Isolation—None.
3. Immunization—By antitoxin, single or repeated injection.
4. Quarantine—None.
5. Concurrent disinfection—None.
6. Terminal disinfection—None.

(B) General measures—

1. Supervision of the practice of obstetrics.
2. Educational propaganda such as "safety-first" campaign, and "safe and sane Fourth of July" campaign.
3. Prophylactic use of tetanus antitoxin where wounds have been acquired in regions where the soil is known to be heavily contaminated, and in all cases where wounds are ragged or penetrating.
4. Supervision of biological products, especially vaccines and sera.
5. Removal of all foreign matter as early as possible from all wounds.

**Trachoma.**

1. *Infectious agent:*<sup>1</sup> The chief, although not yet known to be the only, infectious agents are the hemoglobinophilic bacilli including the so-called Koch-Weeks bacillus.
2. *Source of infection:* Secretions and purulent discharges from the conjunctivae and adnexed mucous membranes of the infected persons.
3. *Mode of transmission:* By direct contact with infected persons and indirectly by contact with articles freshly soiled with the infective discharges of such persons.
4. *Incubation period:* Undetermined.
5. *Period of communicability:* During the persistence of lesions of the conjunctivae and of the adnexed mucous membranes or of discharges from such lesions.
6. *Methods of control:*

(A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms. Bacteriological examination of the conjunctival secretions and lesions may be useful.
2. Isolation—Exclusion of the patient from general school classes.
3. Immunization—None.
4. Quarantine—None.
5. Concurrent disinfection of discharges and articles soiled therewith.
6. Terminal disinfection—None.

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<sup>1</sup> It has not yet been proven that trachoma is due to one specific organism.



## 6. *Methods of control*—Continued.

### (B) General measures—

1. Search for cases by examination of school children, of immigrants, and among the families and associates of recognized cases; in addition, search for acute secreting disease of conjunctivae and adnexed mucous membranes, both among school children and in their families, and treatment of such cases until cured.
2. Elimination of common towels and toilet articles from public places.
3. Education in the principles of personal cleanliness and the necessity of avoiding direct or indirect transference of body discharges.
4. Control of public dispensaries where communicable eye diseases are treated.

### **Trichinosis.**

1. *Infectious agents*.—*Trichinella spiralis*.
2. *Source of infection*.—Uncooked or insufficiently cooked meat of infected hogs.
3. *Mode of transmission*.—Consumption of undercooked infected pork products.
4. *Incubation period*.—Variable; usually about one week.
5. *Period of communicability*.—Disease is not transmitted by human host.
6. *Methods of control*:

#### (A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms, confirmed by microscopical examination of muscle tissue containing trichinae.
2. Isolation—None.
3. Immunization—None.
4. Quarantine—None.
5. Concurrent disinfection—Sanitary disposal of the feces of the patient.
6. Terminal disinfection—None.

#### (B) General measures—

1. Inspection of pork products for the detection of trichinosis.
2. Thorough cooking of all pork products at a temperature of 160° F. or over.

### **Tuberculosis (Pulmonary).**

1. *Infectious agent*.—*Bacillus tuberculosis* (human).
2. *Source of infection*.—The specific organism present in the discharges, or articles freshly soiled with the discharges from any open tuberculous lesions, the most important discharge being sputum. Of less importance are discharges from the intestinal and genito-urinary tracts, or from lesions of the lymphatic glands, bone, and skin.
3. *Mode of transmission*.—Direct or indirect contact with an infected person by coughing, sneezing, or other droplet infection, kissing, common use of unsterilized food utensils, pipes, toys, etc., and possibly by contaminated flies and dust.
4. *Incubation period*.—Variable and dependent upon the type of the disease.
5. *Period of communicability*.—Exists as long as the specific organism is eliminated by the host. Commences when a lesion becomes an open one, and continues until it heals or death occurs.

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6. *Methods of control:*

## (A) The infected individual and his environment—

1. Recognition of the disease—By clinical symptoms and by thorough physical examination, confirmed by bacteriological examination and by serological tests.
2. Isolation of such "open" cases as do not observe the precautions necessary to prevent the spread of the disease.
3. Immunization—None.
4. Quarantine—None.
5. Concurrent disinfection of sputum and articles soiled with it. Particular attention should be paid to prompt disposal or disinfection of sputum itself, of handkerchiefs, cloths, or paper soiled therewith, and of eating utensils used by the patient.
6. Terminal disinfection—Renovation.

## (B) General measures—

1. Education of the public in regard to the dangers of tuberculosis and the methods of control, with especial stress upon the danger of exposure and infection in early childhood.
2. Provision of dispensaries and visiting-nurse service for discovery of early cases and supervision of home cases.
3. Provision of hospitals for isolation of advanced cases, and sanatoria for the treatment of early cases.
4. Provision of open-air schools and preventoria for pre-tuberculous children.
5. Improvement of housing conditions.
6. Ventilation, and elimination of dusts in industrial establishments and places of public assembly.
7. Improvement of habits of personal hygiene and betterment of general living conditions.
8. Separation at birth of babies from tuberculous mothers.

**Tuberculosis (Other than Pulmonary).**

1. *Infectious agent.*—*Bacillus tuberculosis* (human and bovine).
2. *Source of infection.*—Discharges from mouth, nose, bowels, and genito-urinary tract of infected humans; articles freshly soiled with such discharges; milk from tuberculous cattle; rarely the discharging lesion of bones, joints, and lymph nodes.
3. *Mode of transmission.*—By direct contact with infected persons, by contaminated food, and possibly by contact with articles freshly soiled with the discharges of infected persons.
4. *Incubation period.*—Unknown.
5. *Period of communicability.*—Until lesions are healed.
6. *Methods of control:*

## (A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms confirmed by bacteriological and serological examinations.
2. Isolation.—None.
3. Immunization.—None.
4. Quarantine.—None.
5. Concurrent disinfection.—Discharges and articles freshly soiled with them.
6. Terminal disinfection.—Cleansing.

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#### 6. *Methods of control*—Continued.

##### (B) General measures—

1. Pasteurization of milk and inspection of meats.
2. Eradication of tuberculous cows from milch herds used in supplying raw milk.
3. Patients with open lesions should be prohibited from handling foods which are consumed raw.

#### **Typhoid Fever.**

1. *Infectious agent*.—*Bacillus typhosus*.
2. *Source of infection*.—Bowel discharges and urine of infected individuals. Healthy carriers are common.
3. *Mode of transmission*.—Conveyance of the specific organism by direct or indirect contact with a source of infection. Among indirect means of transmission are contaminated water, milk, and shellfish. Contaminated flies have been common means of transmission in epidemics.
4. *Incubation period*.—From 7 to 23 days, averaging 10 to 14 days.
5. *Period of communicability*.—From the appearance of prodromal symptoms, throughout the illness and relapses during convalescence, and until repeated bacteriological examinations of the discharges show persistent absence of the infecting organism.

#### 6. *Methods of control*:

##### (A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms, confirmed by specific agglutination test and bacteriological examination of blood, bowel discharges, or urine.
2. Isolation—In fly-proof room, preferably under hospital conditions, of such cases as can not command adequate sanitary environment and nursing care in their homes.
3. Immunization—Of susceptibles who are known to have been exposed or are suspected of having been exposed.
4. Quarantine—None.
5. Concurrent disinfection—Disinfection of all bowel and urinary discharges and articles soiled with them.
6. Terminal disinfection—Cleansing.

##### (B) General measures—

1. Purification of public water supplies.
2. Pasteurization of public milk supplies.
3. Supervision of other food supplies, and of food handlers.
4. Prevention of fly breeding.
5. Sanitary disposal of human excreta.
6. Extension of immunization by vaccination as far as practicable.
7. Supervision of typhoid carriers and their exclusion from the handling of foods.
8. Systematic examination of fecal specimens from those who have been in contact with recognized cases, to detect carriers.
9. Exclusion of suspected milk supplies pending discovery of the person or other cause of contamination of the milk.
10. Exclusion of water supply, if contaminated, until adequately treated with hypochlorite or other efficient disinfectant, or unless all water used for toilet, cooking, and drinking purposes is boiled before use.

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**Typhus Fever.**

1. *Infectious agent:* *Bacillus typhi exanthematici* is claimed to be the causative agent; not yet definitely determined or generally accepted.
2. *Source of infection:* The blood of infected individuals.
3. *Mode of transmission:* Infectious agent transmitted by lice. (*Pediculus corporis*, *p. capitis*, *p. vestimenti*.)
4. *Incubation period:* Five to twenty days, usually twelve days.
5. *Period of communicability:* Until 36 hours have elapsed after the temperature reaches normal.
6. *Methods of control:*

(A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms. (Confirmation by bacteriological examination of blood claimed by Plotz.)
2. Isolation—In a vermin-free room. All attendants should wear vermin-proof clothing.
3. Immunization—Claimed to be practicable by use of vaccine (Plotz, Olitzky, and Baehr). Not yet generally accepted or adopted.
4. Quarantine—Exposed susceptibles for 12 days since last exposure.
5. Concurrent disinfection—None.
6. Terminal disinfection—Destroy all vermin and vermin eggs on body of patient, if not already accomplished. Destroy all vermin and eggs on clothing. Rooms to be rendered free from vermin.

(B) General measures—

Delousing of persons, clothing, and premises during epidemics, or when they have come or have been brought into an uninfected place from an infected community.

**Whooping Cough.**

1. *Infectious agent:* *Bacillus pertussis* (Bordet, Gagnou).
2. *Source of infection:* Discharges from the laryngeal and bronchial mucous membranes of infected persons (sometimes also of infected dogs and cats, which are known to be susceptible).
3. *Mode of transmission:* Contact with an infected person or animal or with articles freshly soiled with the discharges of such person or animal.
4. *Incubation period:* Within 14 days.
5. *Period of communicability:* Particularly communicable in the early catarrhal stages before the characteristic whoop makes the clinical diagnosis possible. Communicability probably persists not longer than two weeks after the development of the characteristic whoop.
6. *Methods of control:*

(A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms, supported by a differential leucocyte count, and confirmed where possible by bacteriological examination of bronchial secretions.
2. Isolation—Separation of the patient from susceptible children, and exclusion of the patient from school and public places, for the period of presumed infectivity.
3. Immunization—Use of prophylactic vaccination recommended by some observers. Not effective in all cases.
4. Quarantine—Limited to the exclusion of nonimmune children from school and public gatherings for 14 days after their last exposure to a recognized case.

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6. *Methods of control*—Continued.

## (A) The infected individual and his environment—Continued.

5. Concurrent disinfection—Discharges from the nose and throat of the patient and articles soiled with such discharges.

6. Terminal disinfection—Cleansing of the premises used by the patient.

## (B) General measures—

Education in habits of personal cleanliness and in the dangers of association or contact with those showing catarrhal symptoms with cough.

**Yellow Fever.**1. *Infectious agent*.—Unknown.2. *Source of infection*.—The blood of infected persons.3. *Mode of transmission*.—By the bite of infected aedes calopus mosquitoes.4. *Incubation period*.—Three to five days, occasionally six days.5. *Period of communicability*.—First three days of the fever.6. *Methods of control*:

## (A) The infected individual and his environment—

1. Recognition of the disease—Clinical symptoms.

2. Isolation—Isolate from mosquitoes in a special hospital ward or thoroughly screened room. If necessary the room or ward should be freed from mosquitoes by fumigation. Isolation necessary only for the first three days of the fever.

3. Immunization—None.

4. Quarantine—Contacts for six days.

5. Concurrent disinfection—None.

6. Terminal disinfection—None. Upon termination of case the premises should be rendered free from mosquitoes by fumigation.

## (B) General measures—

Eliminate mosquitoes by rendering breeding impossible.

## (C) Epidemic measures—

1. Inspection service for the detection of those ill with the disease.

2. Fumigation of houses in which cases of disease have occurred, and of all adjacent houses.

3. Destruction of aedes calopus mosquitoes by fumigation; use of larvicides; eradication of breeding places.



## PREVALENCE OF DISEASE.

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.*

### UNITED STATES.

#### CURRENT STATE SUMMARIES.

##### California Report for the Week Ended Oct. 6, 1917.

The California State Board of Health reported that during the week ended October 6, 1917, two cases of anthrax in man were notified in the State, one each in Kern and Fresno Counties. The prevalence of anthrax among animals was slightly increased during the week. Two cases of smallpox occurred in Nevada County. Typhoid fever showed an increase, 51 cases having been notified. Diphtheria increased to 38 cases. One case of leprosy was reported at Oxnard.

#### ANTHRAX.

##### Massachusetts—Lynn.

During the week ended October 6, 1917, two cases of anthrax were notified at Lynn, Mass.

#### CEREBROSPINAL MENINGITIS.

##### State Reports for August, 1917.

Place.	New cases reported.	Place.	New cases reported.
Hawaii:		Virginia—Continued.	
Oahu—		Prince George County.....	1
Honolulu.....	1	Rockbridge County.....	1
		Buena Vista.....	1
Virginia:		Rockingham County.....	1
Bland County.....	1	Scott County.....	1
Fluvanna County.....	1	Total.....	9
Loudoun County.....	1		
Norfolk County.....	1		

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## CEREBROSPINAL MENINGITIS—Continued.

City Reports for Week Ended Sept. 22, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.....	1	.....	Lowell, Mass.....	.....	1
Baltimore, Md.....	.....	1	Milwaukee, Wis.....	1	.....
Buffalo, N. Y.....	2	1	Minneapolis, Minn.....	1	.....
Chicago, Ill.....	12	5	New Bedford, Mass.....	.....	1
Cleveland, Ohio.....	2	.....	New York, N. Y.....	2	3
Detroit, Mich.....	4	.....	Philadelphia, Pa.....	.....	1
Galesburg, Ill.....	.....	1	Pittsburgh, Pa.....	1	.....
Hartford, Conn.....	1	.....	Providence, R. I.....	.....	.....
Kansas City, Mo.....	1	.....	San Diego, Cal.....	1	.....

## DIPHTHERIA.

## Illinois—Edwardsville.

Diphtheria was reported as unusually prevalent at Edwardsville, Ill., during the week ended October 6, 1917.

## Maryland—Gapland.

During the week ended October 6, 1917, seven cases of diphtheria were notified at Gapland (unincorporated), Washington County, Md.

## West Virginia—Peru.

On October 8, 1917, an outbreak of diphtheria was reported at Peru, Hardy County, W. Va., at which place 75 cases were reported. The population of Peru in 1910 was 79.

See also Diphtheria, measles, scarlet fever, and tuberculosis, page 1743.

## ERYSIPELAS.

City Reports for Week Ended Sept. 22, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Chicago, Ill.....	6	.....	Philadelphia, Pa.....	1	.....
Cleveland, Ohio.....	3	.....	Pittsburgh, Pa.....	.....	1
Detroit, Mich.....	2	.....	Portland, Oreg.....	1	1
Duluth, Minn.....	1	.....	Quincy, Ill.....	1	.....
Harrisburg, Pa.....	1	.....	Rochester, N. Y.....	1	.....
Jersey City, N. J.....	.....	1	St. Louis, Mo.....	3	.....
Kenosha, Wis.....	1	.....	San Francisco, Cal.....	1	.....
Los Angeles, Cal.....	1	1	Schenectady, N. Y.....	.....	1
Memphis, Tenn.....	1	1	Seattle, Wash.....	1	.....
Milwaukee, Wis.....	5	1	South Bend, Ind.....	1	.....
Newark, N. J.....	3	.....	Steelton, Pa.....	1	.....
New York, N. Y.....	.....	1			

## LEPROSY.

Hawaii Report for August, 1917.

Place.	New cases reported.	Place.	New cases reported.
Hawaii:		Hawaii—Continued.	
Hawaii—		Mau—	
North Kohala District.....	1	Wailuku District.....	1
South Hilo District.....	2		
West Kau District.....	1	Total.....	5

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## MALARIA.

## Virginia Report for August, 1917.

Place.	New cases reported.	Place.	New cases reported.
<b>Virginia:</b>		<b>Virginia—Continued.</b>	
Accomac County.....	18	Louis County.....	6
Chincoteague.....	19	Lunenburg County.....	14
Greenbackville.....	7	Victoria.....	5
Onancock.....	1	Mathews County.....	4
Albemarle County.....	5	Mecklenburg County.....	12
Charlottesville.....	4	Clarksville.....	14
Alexandria County.....	1	Middlesex County.....	21
Alexandria.....	6	Urbanna.....	1
Alleghany County.....	2	Nansemond County.....	15
Amelia County.....	13	Suffolk.....	7
Amherst County.....	1	Nelson County.....	2
Appomattox County.....	1	New Kent County.....	20
Augusta County.....	6	Norfolk County.....	41
Bedford County.....	7	Norfolk.....	2
Brunswick County.....	12	Northampton County.....	62
Lawrenceville.....	1	Cape Charles.....	2
Buckingham County.....	4	Northumberland County.....	39
Campbell County.....	2	Reedville.....	1
Caroline County.....	35	Nottaway County.....	6
Charles City County.....	5	Blackstone.....	4
Charlotte County.....	16	Crewe.....	1
Chesterfield County.....	10	Orange County.....	3
Winterpock.....	4	Pittsylvania County.....	54
Clarke County.....	2	Powhatan County.....	5
Cumberland County.....	5	Princess Anne County.....	36
Dinwiddie County.....	42	Prince Edward County.....	10
Essex County.....	16	Farmville.....	2
Fairfax.....	3	Prince George County.....	23
Fauquier County.....	1	Prince William County.....	1
Fluvanna County.....	8	Richmond County.....	7
Franklin County.....	3	Roanoke County.....	2
Rocky Mount.....	1	Roanoke.....	1
Winchester.....	1	Rockbridge County.....	1
Gloucester County.....	14	Buena Vista.....	1
Goochland County.....	3	Rockingham County.....	3
Greensville County.....	26	Bridgewater.....	4
Emporia.....	25	Dayton.....	1
North Emporia.....	5	Scott County.....	1
Halifax County.....	37	Gate City.....	1
Houston.....	1	Shenandoah County.....	1
South Boston.....	14	Southampton County.....	56
Hanover County.....	37	Franklin.....	7
Ashland.....	2	Spotsylvania County.....	6
Henrico County.....	31	Stafford County.....	8
Henry County.....	6	Surry County.....	2
Martinsville.....	2	Dendron.....	3
Isle of Wight County.....	14	Sussex County.....	41
Smithfield.....	7	Jarratt.....	1
James City County.....	24	Waverly.....	2
Williamsburg.....	10	Warren County.....	1
King and Queen County.....	16	Warwick County.....	15
King George County.....	3	Washington County.....	1
King William County.....	13	Westmoreland County.....	3
Westpoint.....	5	Wythe County.....	4
Lancaster County.....	18	Wytheville.....	16
Lee County.....	2	York County.....	16
Loudon County.....	1	Total.....	1,181
Round Hill.....	1		

## City Reports for Week Ended Sept. 22, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Birmingham, Ala.....	138	1	New York, N. Y.....		1
Boston, Mass.....	1		Richmond, Va.....	3	
Brookline, Mass.....	2		Sacramento, Cal.....	1	
Charleston, S. C.....		1	Savannah, Ga.....	7	2
Memphis, Tenn.....	19	3	Wilmington, N. C.....		1
New Orleans, La.....	2	1			

<sup>1</sup> The reason that Birmingham had so many more cases of malaria reported than any other city is not that the disease is more prevalent in Birmingham than in other cities of Alabama and neighboring States, but undoubtedly because of the successful efforts the health department has made in securing the cooperation of the practicing physicians in reporting cases.

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## MEASLES.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 1743.

## PELLAGRA.

## Virginia Report for August, 1917.

Place.	New cases reported.	Place.	New cases reported.
Virginia:		Virginia—Continued.	
Accomac County.....	4	Isle of Wight County.....	1
Albemarle County.....	1	James City County—	
Alleghany County—		Williamsburg.....	1
Iron Gate.....	1	King and Queen County.....	1
Amherst County.....	8	King William County.....	1
Augusta County—		Westpoint.....	1
Staunton.....	1	Lunenburg County.....	1
Bedford County.....	3	Mecklenburg County.....	2
Brunswick County.....	4	Montgomery County—	
Caroline County.....	1	Radford.....	1
Clarke County.....	2	Nelson County.....	2
Cumberland County.....	1	New Kent County.....	2
Dinwiddie County.....	1	Nottoway County—	
Elizabeth City County—		Burkeville.....	1
Hampton.....	1	Patrick County.....	3
Essex County.....	1	Pittsylvania County.....	1
Fauquier County.....	1	Prince Edward County—	
Franklin County—		Farmville.....	1
Rocky Mount.....	1	Richmond County.....	1
Greensville County.....	1	Rockbridge County.....	1
Emporia.....	4	Russell County.....	1
Hall County—		Washington County.....	2
South Boston.....	1	Wythe County.....	1
Hanover County.....	2	Total.....	71
Henry County.....	5		
Martinsville.....	2		

## City Reports for Week Ended Sept. 22, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Birmingham, Ala.....	15	2	Nashville, Tenn.....		2
Boston, Mass.....	1	1	Richmond, Va.....		1
Fort Worth, Tex.....		1	Winston-Salem, N. C.....		1
Memphis, Tenn.....	9				

<sup>1</sup> The reason that Birmingham had so many cases of pellagra reported is not that the disease is more prevalent in Birmingham than in other cities of Alabama and neighboring States, but undoubtedly because of the successful efforts the health department has made in securing the cooperation of the practicing physicians in reporting cases.

## PNEUMONIA.

## City Reports for Week Ended Sept. 22, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Baltimore, Md.....	2	6	Pittsburgh, Pa.....	19	31
Binghamton, N. Y.....	1	1	Pittsfield, Mass.....	3	3
Brockton, Mass.....	2		Pontiac, Mich.....	2	
Chelsea, Mass.....	2	1	Rochester, N. Y.....	4	4
Chicago, Ill.....	105	60	Saginaw, Mich.....	1	1
Cleveland, Ohio.....	7	10	San Diego, Cal.....	2	2
Jackson, Mich.....	1		San Francisco, Cal.....	19	9
Johnstown, Pa.....	1	1	Schenectady, N. Y.....	1	
Kalamazoo, Mich.....	1	1	Somerville, Mass.....	1	
Kansas City, Mo.....	1	5	Springfield, Ill.....	1	1
Los Angeles, Cal.....	7	2	Springfield, Mass.....	3	2
Manchester, N. H.....	2	2	Stockton, Cal.....	2	2
Newark, N. J.....	11	2	Worcester, Mass.....	4	2
Philadelphia, Pa.....	16	7			

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## POLIOMYELITIS (INFANTILE PARALYSIS).

## Illinois.

During the week ended October 6, 1917, 70 cases of poliomyelitis were notified in Cook County, Ill. Of these Cook County cases, 64 were in the city of Chicago. Four cases were notified in Rock Island County, two cases each in Dupage and Kankakee Counties, and one case each in Brown, Kane, Livingston, Macoupin, Morgan, Schuyler, Stephenson, and Winnebago Counties.

## Kansas.

During the week ended October 6, 1917, cases of poliomyelitis were notified in Kansas as follows: One case each in Kiowa, Kansas City, Horton, Preston, Hugoton, Lamar, McDonald, Severance, and Smith Center.

## Vermont.

During the week ended October 6, 1917, cases of poliomyelitis were notified in Vermont as follows: Barre 3, Calais 1, Stowe 1.

## West Virginia.

During the week ended October 6, 1917, cases of poliomyelitis were notified in West Virginia as follows: In Cabell County, at Huntington 2; Preston County, at Kingwood 1; Taylor County, Grafton 3; Wood County, Parkersburg and Belleville 1 case each.

## State Reports for August, 1917.

Place.	New cases reported.	Place.	New cases reported.
Hawaii:		Virginia—Continued.	
Hawaii—		Middlesex County.....	2
Hilo.....	1	Nansemond County.....	1
Virginia:		Nelson County.....	1
Albemarle County.....	3	Page County.....	2
Amherst County.....	2	Richmond County.....	1
Augusta County.....	3	Rockbridge County.....	4
Bedford County.....	1	Rockingham County.....	18
Fauquier County.....	1	Dayton.....	1
Warrenton.....	2	Harrisburg.....	5
Frederick County.....	3	Shenandoah County.....	2
Winchester.....	1	Smyth County.....	1
Greene County.....	13	Warren County.....	8
Halifax County.....	1	Front Royal.....	2
Lancaster County.....	5	Washington County.....	1
Mecklenburg County.....	1	Total.....	85

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**POLIOMYELITIS (INFANTILE PARALYSIS)**—Continued.**City Reports for Week Ended Sept. 22, 1917.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.....	1	.....	Leavenworth, Kans.....	1	1
Cambridge, Mass.....	1	.....	Lincoln, Nebr.....	1	.....
Camden, N. J.....	1	.....	Newark, N. J.....	.....	2
Canton, Ohio.....	1	.....	New Castle, Pa.....	3	.....
Chicago, Ill.....	66	27	New York, N. Y.....	3	4
Cleveland, Ohio.....	1	.....	Pittsburgh, Pa.....	3	.....
Davenport, Iowa.....	8	1	Rock Island, Ill.....	2	.....
Erie, Pa.....	1	.....	St. Louis, Mo.....	3	.....
Galesburg, Ill.....	1	.....	Topeka, Kans.....	1	.....
Johnstown, Pa.....	1	.....	Wheeling, W. Va.....	1	1
Kansas City, Mo.....	3	.....			

**RABIES IN ANIMALS.****City Reports for Week Ended Sept. 22, 1917.**

During the week ended September 22, 1917, two cases of rabies in animals were reported in Newark, N. J., and one case was reported in Niagara Falls, N. Y.

**SCARLET FEVER.****Montana—Helena and East Helena.**

On October 8, 1917, outbreaks of scarlet fever were reported at Helena and East Helena, Mont. Since September 1, 1917, 12 cases have been notified at East Helena, and since August 10, 1917, 21 cases have been notified at Helena.

See also Diphtheria, measles, scarlet fever, and tuberculosis, page 1743.

**SMALLPOX.****Arkansas.**

On October 3, 1917, cases of smallpox were reported in the State of Arkansas as follows: In Franklin County, near Cass, 3 cases; in Yell County, Gilkey Township, 4 cases.

**Illinois.**

During the week ended October 6, 1917, smallpox was reported as unusually prevalent at Rosiclare, Cave in Rock, and Murphysboro, Ill.

**Minnesota.**

During the week ended October 6, 1917, four new foci of smallpox infection were reported in the State of Minnesota, cases of the disease having been notified as follows: Douglas County, Osakis, 2; McLeod County, Hasson Valley Township, 1; Polk County, Keystone Township, 1; Sibley County, Severence Township, 1.

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## SMALLPOX—Continued.

## Virginia Report for August, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Virginia:			Virginia—Continued.		
Albemarle County—			Southampton County—		
Charlottesville.....	6	.....	Boykins.....	3	.....
Carroll County.....	3	.....	Total.....	18	.....
Halifax County.....	4	.....			
Mathews County.....	2	.....			

## City Reports for Week Ended Sept. 22, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.....	3	.....	Kansas City, Kans.....	8	.....
Alton, Ill.....	1	.....	Leavenworth, Kans.....	1	.....
Birmingham, Ala.....	1	.....	Milwaukee, Wis.....	1	.....
Buffalo, N. Y.....	1	.....	Minneapolis, Minn.....	16	.....
Butte, Mont.....	8	.....	Muscatine, Iowa.....	1	.....
Chicago, Ill.....	2	.....	Nashville, Tenn.....	1	.....
Cleveland, Ohio.....	12	.....	New Orleans, La.....	1	.....
Coffeyville, Kans.....	3	.....	Oklahoma City, Okla.....	1	.....
Fayton, Ohio.....	1	.....	Omaha, Nebr.....	32	.....
Denver, Colo.....	1	.....	Rocky Mount, N. C.....	1	.....
Detroit, Mich.....	8	.....	St. Louis, Mo.....	2	.....
Evansville, Ind.....	3	.....	Salt Lake City, Utah.....	3	.....
Fort Wayne, Ind.....	5	.....	Seattle, Wash.....	2	.....
Indianapolis, Ind.....	6	.....	Toledo, Ohio.....	4	.....

## TETANUS.

## City Reports for Week Ended Sept. 22, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Baltimore, Md.....		1	New Orleans, La.....		2
Canton, Ohio.....		1	Philadelphia, Pa.....		1
Chicago, Ill.....		3	St. Louis, Mo.....		2
Cincinnati, Ohio.....		1	San Diego, Cal.....	1	.....
Los Angeles, Cal.....	1	.....	Syracuse, N. Y.....		1
Mobile, Ala.....		1	Wilmington, Del.....		1

## TUBERCULOSIS.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 1743.

## TYPHOID FEVER.

## Maryland—Maryland School for Boys—Loch Raven.

During the week ended October 6, 1917, 12 cases of typhoid fever were notified at the Maryland School for Boys, Loch Raven, Md.

## Massachusetts—Tewkesbury State Infirmary.

During the week ended October 6, 1917, 52 cases of typhoid fever were notified at the Tewkesbury State Infirmary, Mass.

ARE YOU SAVING Your Money to Invest in the SECOND LIBERTY LOAN?

# TYPHOID FEVER—Continued.

## State Reports for August, 1917.

Place.	New cases reported.	Place.	New cases reported.
<b>Hawaii:</b>		<b>Virginia—Continued.</b>	
Hawaii—		Greene County.....	4
Hauakua District.....	2	Greensville County.....	1
Hilo.....	1	North Emporia.....	3
South Hilo District.....	1	Halifax County.....	23
South Kona District.....	1	South Boston.....	9
Oahu—		Hanover County.....	6
Ewa District.....	1	Henrico County.....	2
Honolulu.....	3	Henry County.....	10
Total.....	9	Marina, Ill.....	2
<b>Virginia:</b>		Highland County.....	1
Accomac County.....	11	Isle of Wight County.....	8
Accomac.....	2	Smithfield.....	1
Greenbackville.....	1	James City County.....	4
Onancock.....	1	King and Queen County.....	3
Albemarle County.....	8	King George County.....	3
Charlottesville.....	10	King William County.....	3
Alexandria County.....		West Point.....	1
Alexandria.....	1	Lancaster County.....	1
Alleghany County.....	5	Irvington.....	1
Amelia County.....	7	Lee County.....	15
Amherst County.....	21	Loudoun County.....	6
Appomattox County.....	4	Purcellville.....	1
Augusta County.....	14	Louisiana County.....	
Basic City.....	1	Louis.....	2
Staunton.....	1	Lunenburg County.....	7
Waynesboro.....	1	Victoria.....	1
Bath County.....	1	Madison County.....	3
Bedford County.....	8	Mathews County.....	3
Bedford.....	4	Mecklenburg County.....	23
Bland County.....	3	Charlottesville.....	4
Botetourt County.....	9	Middlesex County.....	6
Troutville.....	3	Urbanna.....	1
Brunswick County.....	5	Montgomery County.....	6
Alleghany County.....		Christiansburg.....	2
Clifton Forge.....	3	Radford.....	8
Covington.....	2	Nansemond County.....	5
Buchanan County.....	2	Suffolk.....	3
Buckingham County.....	12	Nelson County.....	15
Campbell County.....	12	New Kent County.....	6
Altavista.....	1	Norfolk County.....	22
Brookneal.....	1	Norfolk.....	16
Lynchburg.....	23	Portsmouth.....	10
Caroline County.....	17	Northampton County.....	7
Bowling Green.....	1	Northumberland County.....	6
Carroll County.....	7	Reedville.....	1
Charles City County.....	3	Nottoway County.....	1
Charlotte County.....	5	Blackstone.....	4
Keysville.....	1	Orange County.....	4
Chesterfield County.....	3	Gordonsville.....	6
Clarke County.....	1	Orange.....	1
Culpeper County.....	5	Page County.....	8
Culpeper.....	1	Luray.....	1
Dickenson County.....	6	Shenandoah.....	2
Dinwiddie County.....	2	Patrick County.....	4
Petersburg.....	19	Pittsylvania County.....	8
Elizabeth City County.....	2	Danville.....	10
Hampton.....	6	Powhatan County.....	2
Phoebe.....	2	Prince Edward County.....	11
Essex County.....	4	Prince George County.....	12
Fairfax County.....	21	Prince William County.....	3
Falls Church.....	19	Manassas.....	1
Fauquier County.....	10	Pulaski County.....	3
Warrenton.....	1	Dublin.....	3
Floyd County.....	7	Pulaski.....	4
Floyd.....	2	Rappahannock County.....	5
Fluvanna County.....	2	Richmond County.....	12
Franklin County.....	17	Roanoke County.....	5
Rocky Mount.....	1	Roanoke.....	20
Frederick County.....	7	Salem.....	2
Winchester.....	2	Rockbridge County.....	1
Giles County.....	3	Buena Vista.....	2
Narrows.....	1	Lexington.....	1
Gloucester County.....	4	Rockingham County.....	13
Grayson County.....	11	Bridgewater.....	1
Galax.....	3	Elkton.....	3
		Russell County.....	24

ARE YOU SAVING Your Money to Invest in the SECOND LIBERTY LOAN?

## TYPHOID FEVER—Continued.

## State Reports for August, 1917.

Place.	New cases reported.	Place.	New cases reported.
Virginia—Continued.		Virginia—Continued.	
Scott County.....	11	Tazewell County—Continued.	
Gate City.....	1	Pocahontas.....	2
Shenandoah County.....	5	Richlands.....	2
Mount Jackson.....	1	Tazewell.....	2
Smyth County.....	4	Warren County.....	4
Marion.....	12	Front Royal.....	9
Saltville.....	2	Warwick County.....	1
Southampton County.....	7	Washington County.....	6
Franklin.....	3	Abingdon.....	3
Spotsylvania County.....	2	Damasus.....	1
Fredericksburg.....	4	Westmoreland County.....	2
Surry County.....		Wise County.....	5
Dendron.....	6	Appalachia.....	1
Sussex County.....	7	Norton.....	1
Jarratt.....	1	Wythe County.....	8
Walkefield.....	2	Rural Retreat.....	1
Tazewell County.....	15		
Graham.....	2	Total.....	957

## City Reports for Week Ended Sept. 22, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.....	5		Knoxville, Tenn.....	1	
Albany, N. Y.....	6		Kokomo, Ind.....	4	1
Allentown, Pa.....	1		Lancaster, Pa.....	3	
Alton, Ill.....	1	1	Leavenworth, Kans.....	5	1
Altoona, Pa.....	1		Lexington, Ky.....	6	
Atlantic City, N. J.....	1		Long Beach, Cal.....	1	
Austin, Tex.....		1	Los Angeles, Cal.....	13	2
Baltimore, Md.....	44	3	Lowell, Mass.....	1	
Bayonne, N. J.....	1		Lynchburg, Va.....	2	
Birmingham, Ala.....	48	4	Lynn, Mass.....	2	2
Boston, Mass.....	7		Madison, Wis.....		1
Braddock, Pa.....	2		Marinette, Wis.....	1	
Bridgport, Conn.....	1		Memphis, Tenn.....	5	1
Buffalo, N. Y.....	10		Milwaukee, Wis.....	5	1
Cairo, Ill.....	4		Minneapolis, Minn.....	2	
Cambridge, Mass.....		1	Mobile, Ala.....	4	
Camden, N. J.....	2		Nashville, Tenn.....	16	2
Charleston, S. C.....	5		Newark, N. J.....	4	2
Chelsea, Mass.....	4		Newburgh, N. Y.....	1	
Chicago, Ill.....	18	3	New Castle, Pa.....	1	
Cincinnati, Ohio.....	4	1	New London, Conn.....	2	
Cleveland, Ohio.....	10	2	New Orleans, La.....	6	
Columbus, Ohio.....	1	1	Newport, Ky.....	1	1
Covington, Ky.....	2		New York, N. Y.....	102	8
Cumberland, Md.....	2		Niagara Falls, N. Y.....	2	
Dayton, Ohio.....	8		Norfolk, Va.....	2	
Defroit, Mich.....	20	4	Norristown, Pa.....	2	
Duluth, Minn.....	1		Oakland, Cal.....	1	
East Chicago, Ind.....	1		Ogden, Utah.....	1	
Elizabeth, N. J.....	1		Oklahoma City, Okla.....	2	1
Evansville, Ind.....	9	1	Omaha, Nebr.....	2	
Everett, Mass.....	1		Orange, N. J.....	1	
Fall River, Mass.....	17	1	Passaic, N. J.....	1	
Flint, Mich.....	6		Perth Amboy, N. J.....	3	
Fort Wayne, Ind.....	1		Philadelphia, Pa.....	26	4
Fort Worth, Tex.....	1	4	Pittsburgh, Pa.....	15	2
Galesburg, Ill.....	6		Pontiac, Mich.....		1
Galveston, Tex.....	1		Portland, Me.....	4	
Grand Rapids, Mich.....	2		Portland, Oreg.....	6	
Hagerstown, Md.....	2		Portsmouth, Va.....	3	
Harrisburg, Pa.....	1		Providence, R. I.....	1	
Harrison, N. J.....	1		Quincy, Ill.....	1	1
Hartford, Conn.....		1	Reading, Pa.....	3	
Haverhill, Mass.....	1		Roanoke, Va.....	1	
Indianapolis, Ind.....	7		Rochester, N. Y.....	2	
Jersey City, N. J.....	1		Rockford, Ill.....	5	1
Johnstown, Pa.....	4		Sacramento, Cal.....	2	
Kansas City, Mo.....	1		Saginaw, Mich.....	2	

ARE YOU SAVING Your Money to Invest in the SECOND LIBERTY LOAN?

## TYPHOID FEVER—Continued.

## City Reports for Week Ended Sept. 22, 1917—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
St. Joseph, Mo.	2	.....	Taunton, Mass.	1	.....
St. Louis, Mo.	39	3	Terre Haute, Ind.	3	.....
Salt Lake City, Utah	11	1	Topeka, Kans.	6	.....
Sandusky, Ohio	1	.....	Troy, N. Y.	24	2
San Francisco, Cal.	6	.....	Washington, D. C.	20	4
San Jose, Cal.	1	.....	Washington, Pa.	2	.....
Saratoga Springs, N. Y.	1	.....	Watertown, N. Y.	1	.....
Seattle, Wash.	5	1	West Hoboken, N. J.	.....	1
Somerville, Mass.	1	.....	Wheeling, W. Va.	2	.....
South Bend, Ind.	.....	4	Wichita, Kans.	1	1
Springfield, Ill.	2	3	Williamsport, Pa.	1	.....
Springfield, Mass.	5	1	Wilmington, Del.	1	.....
Springfield, Ohio	4	.....	Winston-Salem, N. C.	11	.....
Steubenville, Ohio	1	.....	Worcester, Mass.	2	1
Syracuse, N. Y.	2	1	York, Pa.	4	.....
Tacoma, Wash.	1	.....	Zanesville, Ohio	.....	1

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

## State Reports for August, 1917.

State.	Cases reported.			State.	Cases reported.		
	Diphtheria.	Measles.	Scarlet fever.		Diphtheria.	Measles.	Scarlet fever.
Hawaii.....	13	1	2	Virginia.....	149	172	41

## City Reports for Week Ended Sept. 22, 1917.

City.	Popula- tion as of July 1, 1916 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Over 500,000 inhabitants:										
Baltimore, Md.	589,621	203	17	1	18	1	5	.....	48	20
Boston, Mass.	756,476	248	72	2	22	2	15	.....	57	25
Chicago, Ill.	2,497,722	671	209	25	19	.....	77	6	322	56
Cleveland, Ohio	674,073	210	56	4	8	.....	3	.....	44	22
Detroit, Mich.	571,784	198	71	6	1	.....	25	2	51	17
Los Angeles, Cal.	503,812	.....	8	1	1	.....	4	.....	31	15
New York, N. Y.	5,602,811	1,318	202	11	46	3	50	.....	255	183
Philadelphia, Pa.	1,709,518	487	45	3	8	.....	18	.....	84	62
Pittsburgh, Pa.	579,090	195	38	3	4	.....	8	.....	25	12
St. Louis, Mo.	757,309	171	57	2	.....	.....	24	.....	44	15
From 300,000 to 500,000 inhab- itants:										
Buffalo, N. Y.	468,558	146	29	2	.....	.....	5	.....	29	11
Cincinnati, Ohio.	410,476	105	18	2	.....	.....	6	.....	25	16
Jersey City, N. J.	306,345	82	13	1	.....	.....	6	.....	12	2
Milwaukee, Wis.	433,535	81	19	4	2	.....	34	1	22	9
Minneapolis, Minn.	363,454	.....	32	.....	2	.....	11	.....	.....	.....
Newark, N. J.	408,894	104	16	1	6	.....	9	.....	21	8
New Orleans, La.	371,747	118	53	.....	.....	.....	5	.....	28	19
San Francisco, Cal.	463,516	127	9	2	31	.....	6	.....	27	17
Seattle, Wash.	348,639	37	3	.....	1	.....	6	.....	5	3
Washington, D. C.	363,980	.....	18	.....	4	.....	9	.....	19	5

ARE YOU SAVING Your Money to Invest in the SECOND LIBERTY LOAN?



# DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS— Continued.

City Reports for Week Ended Sept. 22, 1917—Continued.

City.	Popula- tion as of July 1, 1916 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 200,000 to 300,000 inhabit- ants:										
Columbus, Ohio.....	214,878	71	2	1	1		9		9	6
Denver, Colo.....	260,800	78	7		4		5	1		16
Indianapolis, Ind.....	271,708		51		1		4		1	
Kansas City, Mo.....	297,847	81	15	2	1		2		4	
Portland, Oreg.....	295,463	47	2	1			2		6	4
Providence, R. I.....	254,960	81	10	2			4	1	1	12
Rochester, N. Y.....	250,417		2	2	2		15	1	12	3
From 100,000 to 200,000 inhabit- ants:										
Albany, N. Y.....	104,199		1						10	
Birmingham, Ala.....	181,762	49	1		2	1	7	1	17	2
Bridgeport, Conn.....	121,779	50	7		2	1	2		3	8
Cambridge, Mass.....	112,981	26	8				2		4	5
Camden, N. J.....	106,233		1		1				13	
Dayton, Ohio.....	127,224	38	4	2			2		2	4
Fall River, Mass.....	128,566	42	7				3		5	3
Fort Worth, Tex.....	104,562	27	1				1			2
Grand Rapids, Mich.....	128,191	27	2				2		7	2
Hartford, Conn.....	110,900	44	7	1	2		4		10	3
Lawrence, Mass.....	100,560	26	5				3		6	2
Lowell, Mass.....	113,245	42	4		1				5	3
Lynn, Mass.....	102,425	25	7				1		2	1
Memphis, Tenn.....	148,995		13	1					7	3
Nashville, Tenn.....	117,067	42	3		1		7		5	3
New Bedford, Mass.....	118,158		7		1	1	4		11	4
New Haven, Conn.....	149,685		4	1					11	6
Oakland, Cal.....	198,604	47	4			2	3		16	3
Omaha, Nebr.....	166,470	28	4	2			2			2
Reading, Pa.....	109,381	34	5						1	2
Richmond, Va.....	156,687	33	33	1			5		5	3
Salt Lake City, Utah.....	117,399	31	1				2			1
Springfield, Mass.....	105,942	34	10	1			2			2
Syracuse, N. Y.....	155,624	41	4		2		1		5	1
Tacoma, Wash.....	112,770		8						13	
Toledo, Ohio.....	191,554	70	6	1	2		10		5	7
Trenton, N. J.....	111,593	42	6				1		5	4
Worcester, Mass.....	163,314	46	6	3	1		2		9	1
From 50,000 to 100,000 inhabit- ants:										
Akron, Ohio.....	85,625		28				12		3	
Allentown, Pa.....	61,05	19	8	1					1	
Altoona, Pa.....	58,679		8							
Atlantic City, N. J.....	57,660	9	2						2	
Bayonne, N. J.....	69,893		1				1		1	
Berkeley, Cal.....	57,653	10			2					1
Binghamton, N. Y.....	53,973	21	6				3			1
Brockton, Mass.....	67,449				1				3	
Canton, Ohio.....	60,852	14	2				7		1	
Charleston, S. C.....	60,734	35	4		1					7
Covington, Ky.....	57,144	20	6						2	6
Duluth, Minn.....	94,495	17	5	1			4		4	
Elizabeth, N. J.....	86,690	29	11		3		10		3	5
Erie, Pa.....	77,195		1				2		4	20
Evansville, Ind.....	76,078	17	5				1		1	
Flint, Mich.....	54,772	22	5	1	1		3		1	
Fort Wayne, Ind.....	76,183	21	9	1						5
Harrisburg, Pa.....	72,015	18	4		1					
Hoboken, N. J.....	77,114	12	1		1				5	1
Johnstown, Pa.....	68,559	24	3		1		1			
Kansas City, Kans.....	99,437		4							
Lancaster, Pa.....	50,853								3	
Little Rock, Ark.....	57,343	15					1		3	
Malden, Mass.....	51,155	6	1				2		4	
Manchester, N. H.....	78,283	27							3	3
Mobile, Ala.....	58,721	17		1						2
New Britain, Conn.....	55,794	7								
Norfolk, Va.....	89,612		3				2			4
Oklahoma City, Okla.....	92,943	14	2	1					1	

ARE YOU SAYING Your Money to Invest in the SECOND LIBERTY LOAN?

# DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS— Continued.

City Reports for Week Ended Sept. 22, 1917—Continued.

City.	Popula- tion as of July 1, 1916 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 50,000 to 100,000 inhabit- ants—Continued.										
Passaic, N. J.	71,744	13	9				1		3	
Portland, Me.	63,867	19					1			
Rockford, Ill.	55,185	19	1						15	
Sacramento, Cal.	66,895	22					1		3	
Saginaw, Mich.	55,642	15					3			
St. Joseph, Mo.	85,226	29	3	1						
San Diego, Cal.	53,330	21	2				1		3	
Savannah, Ga.	68,805	27	8	1	1					
Schenectady, N. Y.	99,519	24	2	1					2	
Somerville, Mass.	87,009	11	2		1				2	
South Bend, Ind.	68,946	23					2			
Springfield, Ill.	61,120	23			2		3			
Springfield, Ohio.	51,550	19	3						3	
Terre Haute, Ind.	66,083	17	1							
Troy, N. Y.	77,916	2	2		2		1		2	
Wilkes-Barre, Pa.	76,776	14	9						2	
Wilmington, Del.	94,165						5			
York, Pa.	51,636		3						2	
From 25,000 to 50,000 inhabitants:										
Alameda, Cal.	27,712	13	2				15		1	
Austin, Tex.	34,814	9	1							
Brookline, Mass.	32,700	4	3				2		2	
Butler, Pa.	27,632	7	3				1			
Butte, Mont.	43,425	1	2		1		4			
Chelsea, Mass.	40,192	9			1				4	
Chicopee, Mass.	29,319	7	1							
Cumberland, Md.	26,074	9							5	
Danville, Ill.	32,561	11	2							
Davenport, Iowa.	48,811		3							
East Chicago, Ind.	28,743		4		2				1	
East Orange, N. J.	42,458	7	1				1		1	
Elgin, Ill.	28,203	5	1				1		1	
Everett, Mass.	39,233	3	4		3				2	
Everett, Wash.	35,486	10								
Fitchburg, Mass.	41,781	5	2						2	
Galveston, Tex.	41,863	18	2							
Green Bay, Wis.	29,723	7	1							
Hagerstown, Md.	23,679		1		1		3			
Haverhill, Mass.	48,477						1		1	
Jackson, Mich.	37,363	7					1			
Kalamazoo, Mich.	48,896	21	5		2				1	
Kenosha, Wis.	31,576	6	2		1		4		1	
Kingston, N. Y.	26,771	6								
Knoxville, Tenn.	38,676		7				12			
La Crosse, Wis.	31,677	11	5							
Lexington, Ky.	41,067	19	1		14		1			
Lincoln, Neb.	46,515	15			1		1			
Long Beach, Cal.	27,587	7							2	
Lorain, Ohio.	36,964		1		1		2			
Lynchburg, Va.	32,940	9								
Madison, Wis.	30,669	2							10	
Medford, Mass.	26,234	11	1							
Montclair, N. J.	26,318	4					1		2	
Nashua, N. H.	27,327	15	7							
Newburgh, N. Y.	29,683	7	2		3				4	
New Castle, Pa.	41,133		1						1	
Newport, Ky.	31,927	11							2	
Newport, R. I.	30,108	6	8	1	1					
Newton, Mass.	43,715	6					2		1	
Niagara Falls, N. Y.	37,323	16	1						3	
Norristown, Pa.	31,461	5	4	1						
Ogden, Utah.	31,404	5								
Orange, N. J.	33,680	10	2	1	1		5			
Pasadena, Cal.	46,450	3								
Perth Amboy, N. J.	41,185		4		2					
Pittsfield, Mass.	38,029	12	6	1			4		2	
Portsmouth, Va.	39,651	9					2			
Quincy, Ill.	36,798	14	3						1	

ARE YOU SAVING Your Money to Invest in the SECOND LIBERTY LOAN?

# DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS— Continued.

City Reports for Week Ended Sept. 22, 1917—Continued.

City.	Popula- tion as of July 1, 1916 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 25,000 to 50,000 inhabitants—Continued.										
Quincy, Mass.	38,136	9	2		2		1		5	2
Racine, Wis.	46,483	10							1	
Roanoke, Va.	43,284	9	1		1		1			
Rock Island, Ill.	28,923	11	4							
San Jose, Cal.	38,902						2		1	
Steubenville, Ohio	27,445	10	1				4			
Stockton, Cal.	35,358	3	1						2	1
Superior, Wis.	46,223	14	3	1						
Taunton, Mass.	36,283	13			1				7	2
Topeka, Kans.	48,725	10	1	1			3			
Waltham, Mass.	30,570	10	2						1	1
Watertown, N. Y.	29,894	2			1		1		2	1
West Hoboken, N. J.	43,139	6							1	
Wheeling, W. Va.	43,377	16	2				1			2
Williamsport, Pa.	33,899		9							
Wilmington, N. C.	29,892	7	1							1
Winston-Salem, N. C.	31,155	10					1		2	2
Zanesville, Ohio.	30,863	9								
From 10,000 to 25,000 inhabitants:										
Alton, Ill.	22,874	7	2							1
Ann Arbor, Mich.	15,010	11	2							
Beaver Falls, Pa.	13,732		2							
Berlin, N. H.	13,599	5								1
Braddock, Pa.	21,685		5		2		2			
Cairo, Ill.	15,794	4								1
Clinton, Mass.	13,675	1								
Concord, N. H.	22,669	8	6							
Galesburg, Ill.	21,276	6								
Harrison, N. J.	16,950		1						1	
Kearney, N. J.	23,539	6	1						3	
Kokomo, Ind.	20,039	4	1				1		3	
Leavenworth, Kans.	19,363	2	1				1			
Marinette, Wis.	14,610	5								
Melrose, Mass.	17,445	4	3				2			1
Morristown, N. J.	13,281	4								
Nanticoke, Pa.	23,136	5	1							
Newburyport, Mass.	15,243	5					1			1
New London, Conn.	21,985	14							1	
North Adams, Mass.	12,019	9	3	2					1	
Northampton, Mass.	19,923	11	1	1					3	1
Plainfield, N. J.	23,805	9						2		
Pontiac, Mich.	17,521	10	2							1
Portsmouth, N. H.	11,666						2			
Rocky Mount, N. C.	12,067	9								
Rutland, Vt.	14,831	1					1			
Sandusky, Ohio.	20,193	3			1				2	
Saratoga Springs, N. Y.	13,821	6							4	
South Bethlehem, Pa.	24,204		2		1					
Steelton, Pa.	15,548	5	1						1	
Washington, Pa.	21,618						3			
Wilksburg, Pa.	23,228	3								
Woburn, Mass.	15,969	5								

<sup>1</sup> Population Apr. 15, 1910; no estimate made.

**ARE YOU SAVING Your Money to Invest in the SECOND LIBERTY LOAN?**

## FOREIGN.

### CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER.

Reports Received During the Week Ended Oct. 12, 1917.<sup>1</sup>

#### CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Indo-China:</b>				
Provinces—				
Anam.....	May 1-June 30....	219	188	
Cambodia.....	do.....	77	42	
Cochin-China.....	do.....	681	431	
Laos.....	June 1-30.....	1	—	
Tonkin.....	May 1-June 30....	32	21	

#### PLAGUE.

<b>Brazil:</b>				
Bahia.....	Aug. 19-Sept. 8....	6	5	
Pernambuco.....	July 16-Aug. 15....	4	1	
<b>China:</b>				
Amoy.....	July 30-Aug. 11....	—	—	Present.
<b>Indo-China:</b>				
Provinces—				
Anam.....	May 1-June 30....	95	81	
Cambodia.....	do.....	24	20	
Cochin-China.....	do.....	149	92	
Kwang-Chow-Wan.....	do.....	34	23	
Tonkin.....	do.....	98	77	

#### SMALLPOX.

<b>China:</b>				
Amoy.....	July 29-Aug. 11....	—	—	Present.
<b>Indo-China:</b>				
Provinces—				
Anam.....	May 1-June 30....	361	76	
Cambodia.....	do.....	30	2	
Cochin-China.....	do.....	322	133	
Tonkin.....	do.....	37	2	
<b>Jamaica:</b>				
Kingston.....	Sept. 9-15.....	1	—	
<b>Russia:</b>				
Archangel.....	Aug. 15-28.....	4	—	

#### TYPHUS FEVER.

<b>Argentina:</b>				
Buenos Aires.....	Aug. 12-18.....	—	1	
<b>Netherlands:</b>				
Rotterdam.....	Aug. 19-Sept. 1....	3	—	
<b>Russia:</b>				
Archangel.....	Aug. 15-28.....	9	2	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

**ARE YOU SAVING Your Money to Invest in the SECOND LIBERTY LOAN?**

(1747)

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—** Continued.

**Reports Received from June 30 to Oct. 5, 1917.**

## **CHOLERA.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>India:</b>				
Bassein.....	Apr. 1-May 5.....	.....	8	
Bombay.....	June 24-30.....	1	1	
Do.....	July 8-28.....	11	6	
Calcutta.....	Apr. 29-June 30.....	.....	347	
Do.....	July 1-7.....	.....	3	
Madras.....	Apr. 22-June 30.....	5	4	
Do.....	July 1-Aug. 4.....	63	43	
Mandalay.....	May 6-June 30.....	.....	2	
Moulmein.....	May 13-June 2.....	.....	3	
Pakokku.....	Apr. 20-May 5.....	.....	1	
Pegu.....	May 27-June 30.....	.....	5	
Do.....	July 1-7.....	.....	7	
Rangoon.....	Apr. 21-June 30.....	31	17	
Do.....	July 8-28.....	9	7	
<b>Indo-China:</b>				
Provinces.....				Feb. 1-Apr. 30, 1917: Cases, 227; Deaths, 124.
Anam.....	Feb. 1-Apr. 30.....	14	3	
Cambodia.....	.....do.....	12	9	
Cochin-China.....	.....do.....	197	112	
Tonkin.....	.....do.....	4	.....	
Saigon.....	Apr. 23-May 27.....	163	108	
<b>Java:</b>				
East Java.....	Apr. 2-8.....	1	.....	
Do.....	July 9-15.....	1	1	
Mid Java.....	July 16-22.....	1	1	
West Java.....				Apr. 13-July 5, 1917: Cases, 71; deaths, 31. July 6-Aug. 2, 1917: Cases, 100; deaths, 52.
Batavia.....	Apr. 13-July 5.....	7	2	
Do.....	July 6-Aug. 2.....	9	3	
<b>Persia:</b>				
<b>Mazanderan Province—</b>				
Amir Kela.....	Feb. 3.....	1	.....	
Barfourouche.....	Jan. 15-17.....	4	.....	
Hamze Kela.....	Jan. 17.....	1	.....	
Machidessar.....	Jan. 31.....	3	.....	
<b>Philippine Islands:</b>				
Manila.....	June 17-23.....	1	.....	
<b>Provinces</b>				
Agusan.....	July 15-28.....	12	2	May 20-June 30, 1917: Cases, 795; deaths, 506. July 1-Aug. 4, 1917: Cases, 2,064; deaths, 1,271.
Albay.....	May 21-June 30.....	113	76	
Do.....	July 1-Aug. 4.....	53	33	
Ambos Camarines.....	June 3-9.....	2	1	
Do.....	July 22-Aug. 4.....	21	11	
Bataan.....	July 8-14.....	1	.....	
Batangas.....	June 17-23.....	1	1	
Bohol.....	May 21-June 30.....	368	251	
Do.....	July 1-Aug. 4.....	243	161	
Capiz.....	June 3-30.....	62	40	
Do.....	July 1-Aug. 4.....	64	45	
Cebu.....	June 3-30.....	231	150	
Do.....	July 1-Aug. 4.....	388	254	
Iloilo.....	.....do.....	41	22	
Leyte.....	June 19-30.....	14	5	
Do.....	July 1-Aug. 4.....	334	223	
Misamis.....	July 8-Aug. 4.....	237	117	
Mindanao.....	July 29-Aug. 4.....	12	11	
Negros Oriental.....	July 1-Aug. 4.....	276	177	
Rizal.....	June 24-30.....	1	.....	
Do.....	July 1-7.....	1	.....	
Romblon.....	July 22-23.....	1	1	
Samar.....	July 15-21.....	4	2	
Sorsogon.....	June 3-30.....	196	88	
Do.....	July 1-Aug. 4.....	216	114	
Surigao.....	July 29-Aug. 4.....	4	4	
Tayabas.....	June 3-30.....	7	7	
Do.....	July 1-Aug. 4.....	11	9	
Zamboanga.....	July 15-21.....	11	7	

**ARE YOU SAVING Your Money to Invest in the SECOND LIBERTY LOAN?**



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—** Continued.

**Reports Received from June 30 to Oct. 5, 1917—Continued.**

## **PLAGUE.**

Place.	Date.	Cases.	Deaths.	Remarks.
Arabia:				
Aden.....	May 3-July 4.....		43	Apr. 8-May 14, 1917: Cases, 69; deaths, 51.
Brazil:				
Bahia.....	June 10-30.....	6	3	
Do.....	July 8-Aug. 4.....	5	1	
Ceylon:				
Colombo.....	Apr. 8-June 23.....	41	33	
Do.....	July 6-21.....	1	4	
China:				
Amoy.....	Apr. 29-May 5.....			Present and in vicinity.
Do.....	July 1-7.....	6	6	Present Aug. 19.
Hongkong.....	May 13-June 30.....	20	13	
Do.....	July 8-Aug. 18.....	4	3	
Kwangtung Province— Ta-pu District.....	June 2.....			Present.
Ecuador:				
Estancia Vieja.....	Feb. 1-28.....	1		
Guayaquil.....	do.....	56	29	
Do.....	Mar. 1-31.....	33	18	
Do.....	Apr. 1-30.....	9	4	
Milagro.....	Mar. 1-31.....	1		
Do.....	Apr. 1-30.....	1	1	
Nobol.....	Feb. 1-28.....	2		
Salitre.....	do.....	1		
Do.....	Mar. 1-31.....		1	
Taura.....	Feb. 1-28.....	3	2	
Egypt:				Jan. 1-Aug. 2, 1917: Cases, 1,251; deaths, 696.
Alexandria.....	June 21-27.....	6	4	
Do.....	July 31-Aug. 19.....	3	1	
Port Said government.....	Apr. 30-May 19.....	4	3	
Port Said.....	June 25.....	1		
Do.....	July 28-29.....	1	1	
Provinces—				
Fayoum.....	May 11-June 26.....	14	7	
Ga ioubeh.....	June 28.....	1		
Girgeh.....	May 17.....		1	
Minieh.....	May 12-June 28.....	4	3	
Do.....	July 29.....	1		
Siout.....	May 12.....	3	1	
Suez government.....	Apr. 30-June 2.....	23	9	
Suez.....	May 12-June 28.....	38	23	
Great Britain:				
Gravesend.....	Aug. 13-24.....	3	1	From s. s. Matiana.
London.....	May 3-8.....	2		2 in hospital at port. From s. s. Sardinia from Australian and oriental ports.
India:				Apr. 15-June 30, 1917: Cases, 43,922; deaths, 30,197. July 1-7, 1917: Cases, 1,870; deaths, 1,322.
Bassein.....	Apr. 1-June 30.....		54	
Do.....	July 1-7.....		6	
Bombay.....	Apr. 22-June 30.....	485	397	
Do.....	July 1-28.....	154	127	
Calcutta.....	Apr. 29-June 2.....		38	
Ben arda.....	Apr. 1-June 30.....		35	
Kara hi.....	Apr. 22-June 30.....	468	413	
Do.....	June 28-July 28.....	11	8	
Madras Presidency.....	Apr. 22-June 30.....	301	250	
Do.....	July 1-7.....	70	58	
Mandalay.....	Apr. 8-May 12.....		9	
Moulmein.....	Apr. 1-June 30.....		74	
Do.....	July 1-7.....		16	
Myingyan.....	Apr. 1-7.....		1	
Pegu.....	May 27-June 2.....		2	
Rangoon.....	Apr. 15-June 30.....	183	169	
Do.....	July 1-28.....	217	205	
Toungoo.....	Apr. 8-14.....		2	
Indo-China:				
Provinces.....				Feb. 1-Apr. 30, 1917: Cases, 330; deaths, 198.
Anam.....	Feb. 1-Apr. 30.....	137	50	
Cambodia.....	do.....	108	95	
Co-chin-hina.....	do.....	70	41	
Tonkin.....	do.....	15	12	
Saigon.....	Apr. 23-June 3.....	47	26	

**ARE YOU SAYING Your Money to Invest in the SECOND LIBERTY LOAN?**

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER** Continued.

**Reports Received from June 30 to Oct. 5, 1917—Continued.**

## **PLAGUE—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Java:</b>				
East Java.....				Apr. 2-May 20, 1917: Cases, 29; deaths, 29.
Djocjakarta Residency.....	Apr. 23-May 6.....	1	1	
Kediri Residency.....	do.....	1	1	
Samarang Residency.....	Apr. 23-May 20.....	3	3	
Surabaya Residency.....	Apr. 2-May 20.....	18	18	
Do.....	July 8-28.....	4	4	
Surakarta Residency.....	do.....	6	6	
<b>Peru:</b>				May 16-31, 1917: Cases, 15.
Departments—				
Arequipa.....	May 16-31.....	4		At Mollendo.
Callao.....	do.....	1		At Callao.
Lambayeque.....	do.....	2		At Chiclayo.
Libertad.....	do.....	7		At Salaverry, San Pedro, and Trujillo.
Lima.....	do.....	1		At Lima.
<b>Siam:</b>				
Bangkok.....	Apr. 22-June 30.....	13	12	
Do.....	July 3-23.....	6	5	
<b>Straits Settlements:</b>				
Singapore.....	June 3-16.....	2	1	
Do.....	July 1-7.....	1	1	
<b>Union of South Africa:</b>				
Cape of Good Hope State—				
Glengrey district.....	Aug. 13.....			Present.
Terka district.....	May 28.....	1	1	At Summerhill Farm.
Queenstown.....	June 6.....	1		
<b>Orange Free State:</b>				Apr. 16-22, 1917: 1 case. Apr. 9-22, 1917: Cases, 26; deaths, 17.
Winburg district.....	May 28.....		1	
<b>At sea:</b>				
S. S. Matiana.....	July 14-18.....	9	6	En route for port of London.

## **SMALLPOX.**

<b>Australia:</b>				
New South Wales.....				Apr. 27-July 28, 1917: Cases, 75.
Brewarrina.....	Apr. 27-June 21.....	6		
Cessnock.....	July 25-28.....	4		
Coonabarabran.....	May 25-July 5.....	13		
Quambone.....	Apr. 27-June 21.....	2		
Warren district.....	June 22-July 17.....	50		
<b>Queensland—</b>				
Thursday Island Quarantine Station.....	May 9.....	1		From s. s. St. Albans from Kobe via Hongkong. Vessel proceeded to Townsville, Brisbane, and Sydney, in quarantine.
<b>Brazil:</b>				
Bahia.....	May 6-June 30.....	4		
Do.....	July 22-Aug. 4.....	2	1	
Rio de Janeiro.....	do.....	126	31	
Do.....	July 1-Aug. 11.....	204	37	
<b>Canada:</b>				
Manitoba—				
Winnipeg.....	June 10-16.....	1		
Do.....	Aug. 19-Sept. 1.....	5		
<b>Nova Scotia—</b>				
Halifax.....	June 18-July 7.....	3		
Port Hawkesbury.....	June 17-30.....			Present in district.
<b>Ontario—</b>				
Ottawa.....	July 30-Aug. 5.....	1		
<b>Ceylon:</b>				
Colombo.....	May 6-12.....	1		
<b>China:</b>				
Amoy.....	Apr. 29-May 26.....			Present and in vicinity.
Do.....	July 1-Aug. 19.....			Do.
Antung.....	May 21-June 24.....	4		
Do.....	Aug. 6-12.....	1		
Chungking.....	May 6-June 23.....			Do.
Do.....	July 1-28.....			Do.

**ARE YOU SAYING Your Money to Invest in the SECOND LIBERTY LOAN?**

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—** Continued.

## **Reports Received from June 30 to Oct. 5, 1917—Continued.**

### **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>China—Continued.</b>				
Chanesha.....	May 27-June 2.....	5		
Dairen.....	May 13-June 30.....	30	4	
Do.....	July 8-28.....	6	1	July 1-7, 1917: Present.
Hankow.....	June 24-30.....	2		
Harbin.....	Apr. 23-May 6.....	7		On Chinese Eastern Ry.
Hongkong.....	May 6-June 16.....	8	7	
Do.....	Aug. 5-18.....	1		
Manchuria Station.....	Apr. 23-29.....	1		Do.
Mukden.....	May 27-June 2.....			Present.
Do.....	July 8-Aug. 11.....			Do.
Shanghai.....	May 21-July 1.....	13	32	Cases foreign: deaths among natives.
Do.....	July 2-Aug. 5.....		9	Among Chinese.
Tsitsihar Station.....	Apr. 16-22.....	1		On Chinese Eastern Ry.
Tsingtao.....	May 22-July 7.....	35	7	At another station on railway, 1 case.
Do.....	July 30-Aug. 11.....	4	1	
<b>Chosen (Korea):</b>				
Chemulpo.....	May 1-31.....	1		
<b>Ecuador:</b>				
Guayaquil.....	Feb. 1-28.....	1		
Do.....	Mar. 1-31.....	1		
Do.....	Apr. 1-30.....	5		
<b>Egypt:</b>				
Alexandria.....	Apr. 30-July 1.....	39	9	
Do.....	July 2-29.....	30	4	
Cairo.....	Feb. 12-Mar. 18.....	19	1	
<b>France:</b>				
Nantes.....	July 30-Aug. 5.....	1		
Paris.....	May 6-12.....	1		
<b>Germany:</b>				
Berlin.....	Mar. 18-Apr. 28.....	106		
Bremen.....	do.....	16		
Charlottenberg.....	do.....	18		
Hamburg.....	do.....	50		
Leipzig.....	do.....	20		
Lubeck.....	do.....	2		
Munich.....	do.....	10		
Stuttgart.....	do.....	1		
<b>Greece:</b>				
Athens.....	July 25-30.....		23	
<b>India:</b>				
Bombay.....	Apr. 2-June 30.....	186	75	
Do.....	July 1-28.....	48	22	
Calcutta.....	Apr. 29-May 26.....		12	
Karachi.....	Apr. 22-July 4.....	27	8	
Do.....	July 8-14.....	1	1	
Madras.....	Apr. 2-June 30.....	80	48	
Do.....	July 1-Aug. 4.....	31	15	
Rangoon.....	Apr. 15-June 30.....	33	5	
Do.....	July 1-28.....	7		
<b>Indo-China:</b>				
Provinces.....				
Anam.....	Feb. 1-Apr. 30.....	1,269	161	
Cambodia.....	do.....	106	24	
Cochin-China.....	do.....	945	244	
Kwang-Chow-Wan.....	Mar. 1-Apr. 30.....	4		
Laos.....	Apr. 1-30.....	5	1	
Tonkin.....	Feb. 1-Apr. 30.....	237	28	
Saigon.....	Apr. 27-June 10.....	199	63	
<b>Italy:</b>				
Turin.....	May 21-June 24.....	32	12	
Do.....	July 12-Aug. 26.....	9	3	
<b>Japan:</b>				
Kobe.....	May 27-July 22.....	65	16	
Nagasaki.....	May 28-June 3.....	1		
Osaka.....	May 16-July 5.....	177	55	
Yo kaichi.....	July 25-31.....	1		
Yokohama.....	May 27-July 1.....	1	1	
<b>Java:</b>				
East Java.....	Apr. 2-July 1.....	38	2	
Do.....	July 2-29.....	18		
Mid-Java.....	Apr. 1-July 1.....	88	7	
Do.....	July 2-22.....	23		

Feb. 1-Apr. 30, 1917: Cases, 256; deaths, 458.

**ARE YOU SAVING Your Money to Invest in the SECOND LIBERTY LOAN?**

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—** Continued.

**Reports Received from June 30 to Oct. 5, 1917—Continued.**

## **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Java—Continued.				
West Java.....				
Batavia.....	Apr. 13-July 5....	39	6	Apr. 13-July 5, 1917: Cases, 239; deaths, 44. July 6-Aug. 2, 1917: Cases, 68; deaths, 14.
Mexico:				
Coatepec.....	Jan. 1-June 30....		115	
Do.....	Aug. 1-11.....		1	Jan. 1-Aug. 14, 1916: 118 deaths.
Jalapa.....	July 1-13.....		1	
Mazatlan.....	July 11-Aug. 7....		9	
Mexico City.....	June 3-30.....	162		
Do.....	Aug. 5-Sept. 1....	120		
Monterey.....	June 18-21.....		24	
Orizaba.....	Jan. 1-June 30....		23	
Do.....	July 1-23.....		1	
Vera Cruz.....	July 1-Sept. 8....	5	1	
Netherlands:				
Amsterdam.....	Aug. 13-18.....	1	1	
Philippine Islands:				
Manila.....	May 13-June 9....	6		Variceloid.
Do.....	July 8-Aug. 4....	4		Do.
Portugal:				
Lisbon.....	May 13-June 30....	14		
Do.....	July 8-28.....	4		
Portuguese East Africa:				
Lourenco Marques.....	Mar. 1-May 31....		3	
Russia:				
Archangel.....	May 1-June 28....	56	4	
Petrograd.....	Feb. 18-June 23....	543		
Do.....	July 2-8.....	14		
Riga.....	Mar. 11-June 2....	4		Jan. 1-Mar. 31, 1917: Cases, 9.
Vladivostok.....	Mar. 15-21.....	23	7	
Siam:				
Bangkok.....	June 9-30.....	16		
Do.....	July 11-17.....	3	5	
Spain:				
Madrid.....	May 1-June 19....		4	
Malaga.....	Apr. 1-30.....		12	
Seville.....	May 1-June 30....		11	
Valencia.....	June 3-23.....	5		
Do.....	July 1-Aug. 18....	12		
Straits Settlements:				
Penang.....	Mar. 18-June 23....	6	3	
Singapore.....	June 24-30.....	1		
Sweden:				
Malmö.....	Apr. 22-28.....	1		
Stockholm.....	May 20-June 23....	2	1	
Tunisia:				
Tunis.....	June 2-8.....	2		
Turkey in Asia:				
Trebizond.....	Feb. 25-Apr. 13....		15	
Union of South Africa:				
Johannesburg.....	Mar. 12-24.....	4		
Uruguay:				
Montevideo.....	May 1-31.....	2		
Venezuela:				
Maracaibo.....	June 18-July 8....		8	
Do.....	July 9-23.....		1	

## **TYPHUS FEVER.**

Algeria:				
Algiers.....	June 1-30.....	5	3	
Do.....	July 1-31.....	1	1	
Austria-Hungary:				
Austria.....				Oct. 22-Dec. 17, 1916: Cases, 2,371
Bohemia.....	Oct. 22-Dec. 17....	634		
Galicia.....	do.....	809		
Lower Austria.....	do.....	47		
Moravia.....	do.....	617		
Silesia.....	do.....	16		
Styria.....	do.....	243		
Upper Austria.....	do.....	5		

**ARE YOU SAVING Your Money to Invest in the SECOND LIBERTY LOAN?**

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—** Continued.

**Reports Received from June 30 to Oct. 5, 1917—Continued.**

## **TYPHUS FEVER—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Austria-Hungary—Continued.</b>				
Hungary:				
Budapest.....	Feb. 19-Mar. 25.....	83	.....	Feb. 19-Mar. 25, 1917: Cases, 1,381.
<b>Brazil:</b>				
Rio de Janeiro.....	July 29-Aug. 11.....	2	.....	
<b>China:</b>				
Antung.....	June 25-July 1.....	3	.....	
Do.....	July 9-Aug. 23.....	9	1	
Hankow.....	June 9-15.....	1	.....	
Do.....	July 8-14.....	.....	1	
Tientsin.....	June 17-24.....	1	.....	
Tsingtao.....	May 30-July 7.....	4	.....	
Do.....	Aug. 5-11.....	1	.....	
<b>Egypt:</b>				
Alexandria.....	Aug. 30-July 1.....	1,648	478	
Do.....	July 17-Aug. 19.....	286	103	
Cairo.....	Jan. 22-Mar. 18.....	96	40	
<b>Great Britain:</b>				
Cork.....	June 17-23.....	.....	1	
<b>Greece:</b>				
Saloniki.....	Mar. 23-June 23.....	.....	32	
Do.....	July 1-Aug. 4.....	.....	19	
<b>Japan:</b>				
Hakodate.....	July 22-28.....	1	.....	
Nagasaki.....	June 11-21.....	4	.....	
Do.....	July 9-Aug. 19.....	24	2	
<b>Java:</b>				
East Java.....	June 25-July 29.....	4	.....	May 6-July 1, 1917: Cases, 6. July 9-29, 1917: Cases, 6.
Surabaya.....	.....	.....	.....	Apr. 1-June 24, 1917: Cases, 38; deaths, 5. July 9-22, 1917: Cases, 7; deaths, 1.
Mid-Java.....	May 5-June 10.....	14	2	
Samarang.....	July 2-8.....	5	.....	
Do.....	.....	.....	.....	Apr. 13-July 5, 1917: Cases, 147; deaths, 6. July 6-Aug. 2, 1917: Cases, 46; deaths, 2.
West Java.....	.....	.....	.....	
Batavia.....	Apr. 13-July 5.....	70	6	
Do.....	July 6-Aug. 2.....	37	2	
<b>Mexico:</b>				
Aguascalientes.....	July 19-15.....	.....	1	
Coatepec.....	Aug. 1-14.....	.....	1	
Jalapa.....	Apr. 1-June 30.....	.....	5	
Do.....	July 1-31.....	.....	3	
Mexico City.....	June 3-30.....	431	.....	
Do.....	July 8-Sept. 1.....	770	.....	
Orizaba.....	Jan. 1-June 30.....	.....	6	
Do.....	July 1-31.....	.....	1	
<b>Netherlands:</b>				
Rotterdam.....	June 9-23.....	3	2	
Do.....	July 15-Aug. 11.....	8	.....	
<b>Norway:</b>				
Bergen.....	July 8-28.....	7	.....	
<b>Portuguese East Africa:</b>				
Lourenço Marques.....	Mar. 1-31.....	1	.....	
<b>Russia:</b>				
Archangel.....	May 1-June 28.....	11	2	
Petrograd.....	Feb. 18-June 23.....	138	3	
Do.....	July 2-8.....	10	.....	
Riga.....	May 31-June 2.....	2	.....	Jan. 1-31, 1917: 1 case.
Vladivostok.....	Mar. 29-May 21.....	5	.....	
<b>Spain:</b>				
Almeria.....	May 1-31.....	.....	5	
Madrid.....	do.....	.....	2	
<b>Switzerland:</b>				
Basel.....	June 17-23.....	1	.....	
Do.....	July 8-21.....	5	1	
Zurich.....	July 23-Aug. 18.....	2	.....	
Trinidad.....	June 1-9.....	2	.....	
<b>Tunisia:</b>				
Tunis.....	June 30-July 6.....	.....	1	
<b>Union of South Africa:</b>				
Cape of Good Hope State—				
East London.....	Sept. 16.....	.....	.....	Present.

**ARE YOU SAVING Your Money to Invest in the SECOND LIBERTY LOAN?**

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—**  
Continued.

**Reports Received from June 30 to Oct. 5, 1917—Continued.**

**YELLOW FEVER.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Ecuador:</b>				
Babahoyo.....	Feb. 1-28.....	1	1	
Do.....	Mar. 1-31.....	2	1	
Chobo.....	do.....	1	1	
Guayaquil.....	Feb. 1-28.....	18	7	
Do.....	Mar. 1-31.....	17	9	
Do.....	Apr. 1-30.....	17	9	
Milagro.....	Feb. 1-28.....	1	1	
Do.....	Mar. 1-31.....	1	1	
Do.....	Apr. 1-30.....	1	1	
<b>Mexico:</b>				
Campeche State—				
Campeche.....	Aug. 19-25.....	2	1	
Yucatan State—				
Merida.....	Aug. 7-Sept. 1....	7	3	
Peto.....	June 23.....	1	1	In person recently arrived from Mexico City.
Do.....	July 29-Aug. 11....	6	2	
<b>Venezuela:</b>				
Coro.....				Present Sept. 5.

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